In Parliament – Session 2021 - 2022

HS2

High Speed Rail (Crewe – Manchester) Environmental Statement

Volume 5: Appendix TR-003-00006_Report 3

Traffic and transport

MA06: Hulseheath to Manchester Airport/
MA07: Davenport Green to Ardwick/
MA08: Manchester Piccadilly Station
Transport Assessment Part 3 - Report 3 of 4

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Transport Assessment Part 3 - Report 3 of 4

M292

Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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Accidents and safety

18.3.707 The baseline safety analysis identified no locations which had experienced an accident cluster over a three-year period in MA06. The baseline safety analysis identified 15 locations in the MA07 area and 12 locations in the MA08 area which had experienced an accident cluster over a three-year period. There are no locations in MA07 or MA08 with existing safety concerns are likely to experience substantial increases in traffic during construction and, consequently, no unacceptable impacts on accident and safety risks are expected. Although there will be increases in construction traffic on other links and junctions, none have been identified in the baseline assessment as the location of a known or likely safety concern.

Parking and loading

MA06

18.3.708 There will be a temporary loss of parking in the MA06 area during construction of the Proposed Scheme. This will result in the temporary loss of 79 off-street spaces at Holiday Inn Express Manchester Airport, located off Runger Lane, for a period of four years. Two Blue Badge bays will be relocated. There will also be the loss of nine off-street spaces at Manchester Airport (Building 319 World Cargo Centre), located off Avro Way, for a period of four years. Four Blue Badge bays will be relocated.

18.3.709 Permanent loss of parking is reported under the operational assessment.

MA07

18.3.710 There are no temporary changes in the car parks or parking restrictions in the MA07 area during construction of the Proposed Scheme.

18.3.711 Permanent loss of parking is reported under the operational assessment.

MA08

18.3.712 There will be a temporary loss of parking in the MA08 area during construction of the Proposed Scheme. This will result in the temporary loss of 38 off-street spaces, including two Blue Badge bays, at the customer car park for a furniture retailer, located off the A665 Great Ancoats Street.

18.3.713 There will also be impacts on parking at Manchester Piccadilly Station during construction of the Proposed Scheme. The impacts will be on Manchester Piccadilly Station multi-storey car park, Network Rail Ramp, Network Rail undercroft and Gateway House car park with an increase in journey length of up to 775m associated with temporary diversions to pedestrian routes. All of the parking spaces in these car parks will be affected, including 39 Blue Badge bays. An accessible motorised link will be provided between the replacement car parks and the Manchester Piccadilly Station entrance on Station Approach to mitigate the increase in journey length.

18.3.714 Permanent loss of parking is reported under the operational assessment.

Public transport

Local bus services

MA06

18.3.715 Local bus services in the MA06 area will be affected where they cross the route of the Proposed Scheme and where the Proposed Scheme will result in changes to the route taken or where construction traffic or general traffic diversions affect bus services.

18.3.716 There will be impacts on bus journey times associated with temporary realignment of the A538 Hale Road for a period of two years and eight months and increased HGV movements associated with construction of the Proposed Scheme and diverted traffic flows. The impact of these changes on bus journey times has been assessed using the Greater Manchester SATURN Model, which includes journey times for peak hour bus services. Table 18-223 and Table 18-224 set out the changes to the bus journey times in 2030.

18.3.717 The routes with the greatest proportional increase in journey times in the 2030 AM peak period are:

- bus routes 88, 283, 741 and 869 operating on the A538 Hale Road/Wilmslow Road between Delahays Road and Mill Lane - 20% increase in journey time in the eastbound direction during scenario 1; and
- bus routes 103, 288 and 313 operating on the A538 Hale Road/Wilmslow Road and Runger Lane between Delahays Road and Manchester Airport - 18% increase in journey time in the eastbound direction during scenarios 2, 3 and 4.

18.3.718 The routes with the greatest proportional increase in journey times in the 2030 PM peak period are:

- bus routes 88, 283, 741 and 869 operating on the A538 Hale Road/Wilmslow Road between Delahays Road and Mill Lane - 26% increase in journey time in the eastbound direction during scenario 1; and
- bus routes 103, 288 and 313 operating on the A538 Hale Road/Wilmslow Road and Runger Lane between Delahays Road and Manchester Airport - 30% increase in journey time in the eastbound direction during scenarios 2 and 3.

Table 18-223: MA06 Bus journey time changes (in minutes) - AM peak hour (08:00–09:00)

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		2030 baseline	Proposed Scheme utilities scenario			Proposed Scheme scenario 1			Proposed Scheme scenario 2			Proposed Scheme scenario 3			Proposed Scheme scenario 4		
88, 283, 741, 869	Mill Lane to Delahays Road via A538 Wilmslow Road and A538 Hale Road (westbound)	11:10	10:30	00:40	6%	11:00	00:10	1%	12:10	01:00	9%	12:10	01:00	9%	12:00	00:50	7%
	Delahays Road to Mill Lane via A538 Hale Road and A538 Wilmslow Road (eastbound)	13:20	13:20	00:00	0%	16:00	02:40	20%	11:40	01:40	13%	12:00	01:20	10%	10:50	02:30	19%
103, 288, 313	Manchester Airport to Delahays Road via Runger Lane and A538 Hale Road (westbound)	09:10	08:40	00:30	5%	08:20	00:50	9%	09:20	00:10	2%	09:20	00:10	2%	09:20	00:10	2%
	Delahays Road to Manchester Airport via A538 Hale Road and Runger Lane (eastbound)	08:10	08:00	00:10	2%	08:00	00:10	2%	09:40	01:30	18%	09:40	01:30	18%	09:40	01:30	18%

Table 18-224: MA06 Bus journey time changes (in minutes) - PM peak hour (17:00–18:00)

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		2030 baseline	Proposed Scheme utilities scenario			Proposed Scheme scenario 1			Proposed Scheme scenario 2			Proposed Scheme scenario 3			Proposed Scheme scenario 4		
88, 283, 741, 869	Mill Lane to Delahays Road via A538 Wilmslow Road and A538 Hale Road (westbound)	11:20	10:30	00:50	7%	13:20	02:00	18%	13:40	02:20	21%	14:00	02:40	24%	13:10	01:50	16%
	Delahays Road to Mill Lane via A538 Hale Road and A538 Wilmslow Road (eastbound)	10:20	10:40	00:20	3%	13:00	02:40	26%	09:00	01:20	13%	09:10	01:10	11%	08:50	01:30	15%
103, 288, 313	Manchester Airport to Delahays Road via Runger Lane and A538 Hale Road (westbound)	08:50	08:20	00:30	6%	07:50	01:00	11%	09:00	00:10	2%	08:50	00:00	0%	09:00	00:10	2%
	Delahays Road to Manchester Airport via A538 Hale Road and Runger Lane (eastbound)	07:20	07:30	00:10	2%	07:30	00:10	2%	09:30	02:10	30%	09:30	02:10	30%	09:20	02:00	27%

MA07 and MA08

18.3.719 Local bus services in the MA07 and MA08 area will be affected where they cross the route of the Proposed Scheme and where the Proposed Scheme will result in changes to the route taken or where construction traffic or general traffic diversions affect bus services.

18.3.720 There will be impacts on bus journey times associated with the temporary remodelling of the road network around the A635/A665 Pin Mill Brow for a period of three years and six months and increased HGV movements associated with construction of the Proposed Scheme and diverted traffic flows. The impact of these changes on bus journey times has been assessed using the Greater Manchester SATURN Model, which includes journey times for peak hour bus services. Table 18-225 and Table 18-226 set out the changes to the bus journey times in 2030.

18.3.721 The routes with the greatest proportional increase in journey times in 2030 AM peak period are:

- bus routes 7, 7A, 7B, 171, 172, 219, 220, 221, 703, 704, 707, 719, 747 and 768 operating on the A635 Ashton Old Road between the A6010 Alan Turing Way and Manchester City Centre - 32% increase in journey time in the westbound direction during scenario 2;
- bus routes 192, 733 and X92 operating on the A6 Stockport Road between the A6010 Alan Turing Way and Manchester City Centre - 32% increase in journey time in the southbound direction during scenario 2;
- bus routes 216, 230 and 231 operating on the A662 Ashton New Road between the A6010 Alan Turing Way and Manchester City Centre - 26% increase in journey time in the eastbound direction during the utilities scenario; and
- bus routes 201, 202, 203 and 205 operating on the A57 Hyde Road between the A6010 Alan Turing Way and Manchester City Centre - 32% increase in journey time in the eastbound direction during scenario 2.

18.3.722 The routes with the greatest proportional increase in journey times in 2030 PM peak period are:

- bus routes 7, 7A, 7B, 171, 172, 219, 220, 221, 703, 704, 707, 719, 747 and 768 operating on the A635 Ashton Old Road between the A6010 Alan Turing Way and Manchester City Centre - 51% increase in journey time in the eastbound direction during scenario 2;
- bus routes 192, 733 and X92 operating on the A6 Stockport Road between the A6010 Alan Turing Way and Manchester City Centre - 16% increase in journey time in the southbound direction during the utilities scenario; and
- bus routes 201, 202, 203 and 205 operating on the A57 Hyde Road between the A6010 Alan Turing Way and Manchester City Centre - 15% increase in journey time in the eastbound direction during the utilities scenario.

Table 18-225: MA07 and MA08 Bus journey time changes (in minutes) - AM peak hour (08:00–09:00)

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		2030 baseline	Proposed Scheme utilities scenario			Proposed Scheme scenario 1			Proposed Scheme scenario 2			Proposed Scheme scenario 3			Proposed Scheme scenario 4		
7, 7A, 7B, 171, 172, 219, 220, 221, 703, 704, 707, 719, 747, 768	A6010 Alan Turing Way to Manchester City Centre via A635 Ashton Old Road (westbound)	14:10	12:40	01:30	11%	14:20	00:10	1%	18:40	04:30	32%	16:50	02:40	19%	17:30	03:20	24%
	Manchester City Centre to A6010 Alan Turing Way via A635 Ashton Old Road (eastbound)	12:10	12:10	00:00	0%	12:10	00:00	0%	12:10	00:00	0%	12:00	00:10	1%	12:30	00:20	3%
192, 733, X92	A6010 Alan Turing Way to Manchester City Centre via A6 Stockport Road (northbound)	10:30	09:40	00:50	8%	10:10	00:20	3%	11:00	00:30	5%	10:20	00:10	2%	10:20	00:10	2%
	Manchester City Centre to A6010 Alan Turing Way via A6 Stockport Road (southbound)	09:30	09:10	00:20	4%	09:00	00:30	5%	12:30	03:00	32%	09:00	00:30	5%	09:10	00:20	4%
216, 230, 231	A6010 Alan Turing Way to Manchester City Centre via A662 Ashton New Road (westbound)	11:10	10:30	00:40	6%	10:30	00:40	6%	11:00	00:10	1%	11:50	00:40	6%	11:30	00:20	3%
	Manchester City Centre to A6010 Alan Turing Way via A662 Ashton New Road (eastbound)	12:20	15:30	03:10	26%	14:30	02:10	18%	11:40	00:40	5%	12:20	00:00	0%	12:00	00:20	3%

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		2030 baseline	Proposed Scheme utilities scenario			Proposed Scheme scenario 1			Proposed Scheme scenario 2			Proposed Scheme scenario 3			Proposed Scheme scenario 4		
201, 202, 203, 205	A6010 Alan Turing Way to Manchester City Centre via A57 Hyde Road (westbound)	10:50	10:10	00:40	6%	10:40	00:10	2%	12:10	01:20	12%	11:00	00:10	2%	10:50	00:00	0%
	Manchester City Centre to A6010 Alan Turing Way via A57 Hyde Road (eastbound)	09:30	09:20	00:10	2%	09:00	00:30	5%	12:30	03:00	32%	09:00	00:30	5%	09:00	00:30	5%

Table 18-226: MA07 and MA08 Bus journey time changes (in minutes) - PM peak hour (17:00–18:00)

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		2030 baseline	Proposed Scheme utilities scenario			Proposed Scheme scenario 1			Proposed Scheme scenario 2			Proposed Scheme scenario 3			Proposed Scheme scenario 4		
7, 7A, 7B, 171, 172, 219, 220, 221, 703, 704, 707, 719, 747, 768	A6010 Alan Turing Way to Manchester City Centre via A635 Ashton Old Road (westbound)	15:50	10:30	05:20	34%	16:50	01:00	6%	23:50	08:00	51%	18:50	03:00	19%	18:40	02:50	18%
	Manchester City Centre to A6010 Alan Turing Way via A635 Ashton Old Road (eastbound)	15:30	15:00	00:30	3%	15:00	00:30	3%	17:10	01:40	11%	15:50	00:20	2%	15:40	00:10	1%

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		2030 baseline	Proposed Scheme utilities scenario			Proposed Scheme scenario 1			Proposed Scheme scenario 2			Proposed Scheme scenario 3			Proposed Scheme scenario 4		
192, 733, X92	A6010 Alan Turing Way to Manchester City Centre via A6 Stockport Road (northbound)	09:20	09:30	00:10	2%	09:30	00:10	2%	09:50	00:30	5%	09:30	00:10	2%	09:30	00:10	2%
	Manchester City Centre to A6010 Alan Turing Way via A6 Stockport Road (southbound)	08:10	09:30	01:20	16%	08:00	00:10	2%	08:10	00:00	0%	08:10	00:00	0%	08:10	00:00	0%
216, 230, 231	A6010 Alan Turing Way to Manchester City Centre via A662 Ashton New Road (westbound)	10:40	10:40	00:00	0%	11:10	00:30	5%	11:30	00:50	8%	11:30	00:50	8%	10:50	00:10	2%
	Manchester City Centre to A6010 Alan Turing Way via A662 Ashton New Road (eastbound)	11:10	11:20	00:10	1%	11:20	00:10	1%	11:00	00:10	1%	10:50	00:20	3%	11:10	00:00	0%
201, 202, 203, 205	A6010 Alan Turing Way to Manchester City Centre via A57 Hyde Road (westbound)	09:30	09:30	00:00	0%	09:30	00:00	0%	10:00	00:30	5%	09:30	00:00	0%	09:30	00:00	0%
	Manchester City Centre to A6010 Alan Turing Way via A57 Hyde Road (eastbound)	08:00	09:10	01:10	15%	07:50	00:10	2%	08:00	00:00	0%	07:50	00:10	2%	08:00	00:00	0%

Metrolink

MA06

18.3.723 There will be no impacts on Metrolink in the MA06 area.

MA07 and MA08

18.3.724 There will be temporary impacts on Metrolink in the MA07 and MA08 areas during the construction of Manchester Piccadilly High Speed Station. The Metrolink line between Manchester Piccadilly Station and Ashton-under-Lyne (the Ashton Line) will be temporarily closed for a period of approximately two years to enable the construction of the new, expanded Piccadilly Metrolink stop beneath Manchester Piccadilly High Speed Station.

18.3.725 Construction works will include the relocation of the existing Piccadilly Metrolink stop from its current location to a new location beneath Manchester Piccadilly High Speed Station, as part of which it will be enhanced from a two-platform to a four-platform tram stop, and the building of a new Metrolink stop (Piccadilly Central) on the north-eastern boundary of the existing Manchester Piccadilly Station.

18.3.726 During the temporary closure of the Ashton Line, a replacement bus service will be provided to run between Ashton-under-Lyne and Piccadilly Gardens with 11 intermediate stops along the route shown in Figure 18-54. The replacement bus route is approximately 11km in length and will call at bus stops close to the majority of the existing stops on the Metrolink Ashton Line. However, the users of the Etihad Campus and Piccadilly Metrolink stops will be affected by an increase in journey length during this period.

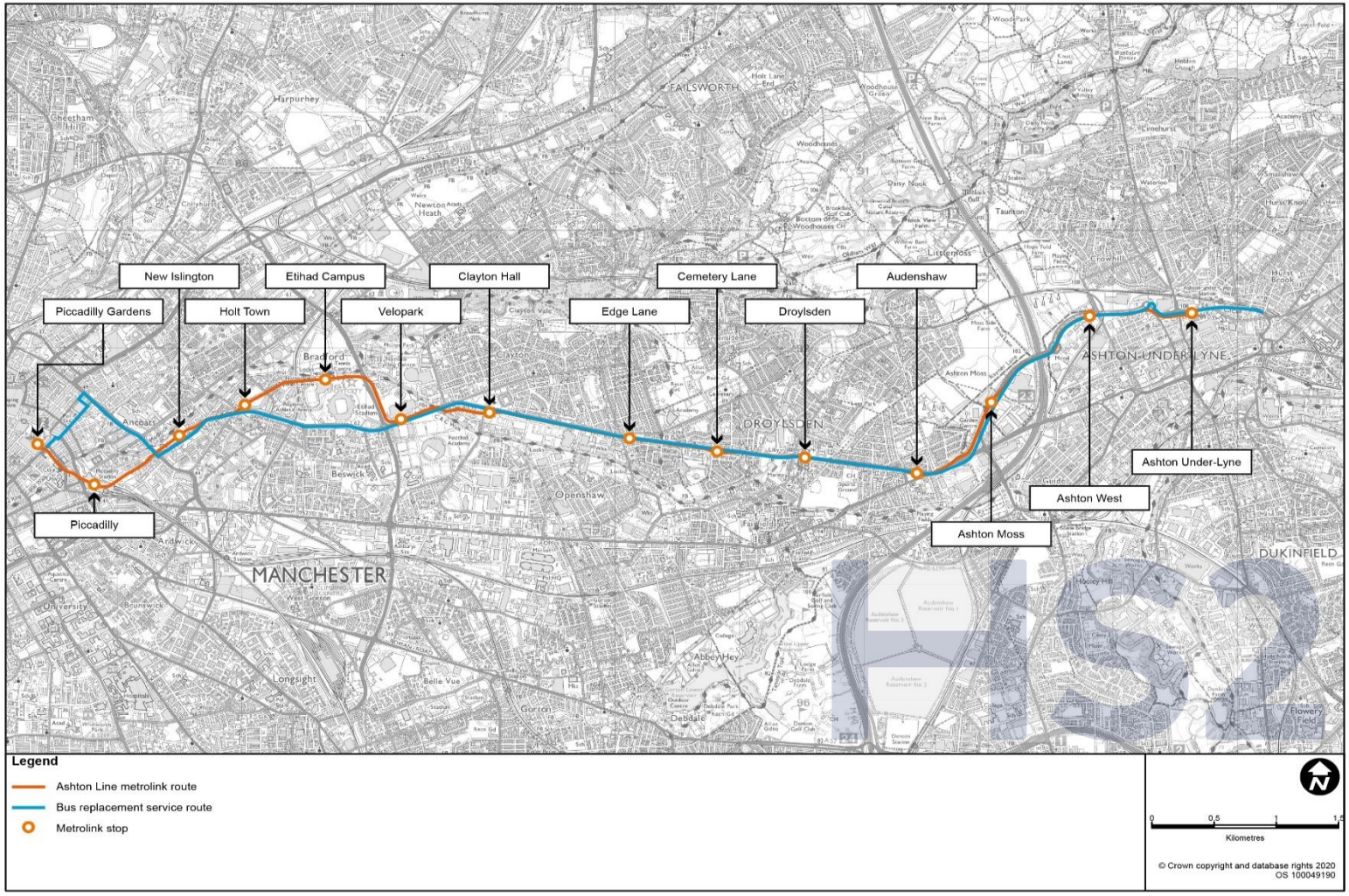
18.3.727 Users of the Etihad Campus Metrolink stop will be required to board and alight the service at bus stops on the A662 Ashton New Road with an increase in journey length of up to 750m, whilst users of the Ashton Line who would normally board or alight at Piccadilly Metrolink stop will be required to board and alight the replacement bus service at Piccadilly Gardens with an increase in journey length of up to 700m. Access to the Piccadilly Metrolink stop will be maintained for passengers from the west on the Eccles Line, however trams will turn back at Piccadilly until the new Piccadilly Metrolink stop becomes fully functional.

18.3.728 The replacement bus service will have a peak hour frequency of ten buses per hour (every six minutes) in each direction, which will provide a similar level of capacity to the existing Metrolink service. In the 2030 AM and PM peak hours, the full route journey time for travellers between Ashton-Under-Lyne and Manchester Piccadilly Gardens will be approximately 35-45 minutes, which is broadly comparable with the scheduled journey time by tram.

18.3.729 Metrolink passengers will also be able to use alternative public bus services, including the existing service 216 (Manchester - Clayton - Drolysden - Ashton - Stalybridge), which follows the A662 Ashton New Road corridor between Ashton-under-Lyne and Manchester Piccadilly Station, and service 219 (Manchester - Openshaw - Guide Bridge - Ashton - Stalybridge),

which follows the A635 Ashton Old Road corridor between Ashton-under-Lyne and Manchester Piccadilly Station.

Figure 18-54: Metrolink Ashton Line bus replacement service



Rail network

MA06

18.3.730 The construction of the Proposed Scheme is expected to impact the existing rail network in the MA06 area, in particular on the operation of the Altrincham to Chester (Mid-Cheshire Line). A number of rail possessions over a period of up to eight years will be required for the construction of the Mid-Cheshire (Railway) and Mobberley Road Viaduct, the Mobberley Road offline overbridge and the Ashley railhead.

18.3.731 Overall, there will be 18 possessions comprising eight possessions of up to 27 hours, nine possessions up to 54 hours, and one possession of up to 72 hours.

18.3.732 Disruption to rail users will be reduced by limiting possessions, where reasonably practicable, to existing maintenance periods, rail service diversions and replacement bus services.

MA07

18.3.733 The construction of the Proposed Scheme is expected to impact the existing rail network in the MA07 area, in particular the operation of the Ashburys Line. A number of rail possessions over a period of up to four years will be required for the construction of the Manchester tunnel.

18.3.734 Overall, there will be five possessions and blockades comprising four possessions of up to 54 hours and one blockade of four days.

18.3.735 Disruption to rail users will be reduced by limiting possessions, where reasonably practicable, to existing maintenance periods, rail service diversions and replacement bus services.

MA08

18.3.736 There are interfaces with the existing rail network in the MA08 area, in particular, the Crewe to Manchester Line, Glossop Line, and Liverpool to Manchester Line. However, the majority of the rail possessions will have little or no impact on the operation of rail services as they will be relatively minor localised works, such as work on and adjacent to track when not in use, and track monitoring during tunnelling. In addition, where rail possessions do have the potential to disrupt services, interventions will be combined where practicable to reduce the frequency of potential disruption.

18.3.737 HS2 Ltd will work with Network Rail and the train operating companies and freight operating companies to ensure that disruption to passengers and freight is reduced as far as reasonably practicable and that any need for additional possessions can be reduced with good planning and communication (including appropriate advance notice). This includes measures such as:

- careful programming of works to coincide with possessions that are planned for the general maintenance of the existing railway;
- planning works so that they will be undertaken in short, overnight stages when passenger services will not be disrupted; and
- programming longer closures at weekends or bank holidays to reduce the number of passengers affected.

Public transport interchanges

MA06

18.3.738 The construction of the Proposed Scheme will not impact upon any public transport interchanges in the MA06 area.

MA07

18.3.739 The construction of the Proposed Scheme will impact on the Ashton-Under-Lyne Interchange as a result of the temporary closure of the Metrolink Ashton Line. Passengers on the Ashton Line will be required to use the Metrolink replacement bus service.

MA08

18.3.740 The construction of the Proposed Scheme will impact on Manchester Piccadilly Station with some passenger routes between platforms, concourse and surface connections disrupted during the construction period.

18.3.741 Construction of this section will be managed from the Manchester Piccadilly Station main compound, which is described in Section 2, and shown on map CT-05-365b in the Volume 2: MA08 Map Book.

18.3.742 Key features of the station integration works include:

- integration of the existing station concourse, to form the shared concourse with the Manchester Piccadilly High Speed Station;
- minor works within the existing Manchester Piccadilly Station including the provision of new signage and information systems;
- relocation of existing Network Rail offices and assets, which will be re-provided adjacent to the shared concourse;
- relocation of Manchester Piccadilly Station multi-storey car park on Boad Street, the Network Rail undercroft and the Network Rail Ramp parking spaces into the new multi-storey car parks;
- alterations to the accesses for the Metrolink tram facilities at the existing Manchester Piccadilly Station; and
- re-provision of multi-storey parking facilities as part of Manchester Piccadilly High Speed Station.

18.3.743 The proposed phasing of construction works will allow the majority of interchange routes and surface connections to be maintained. However, there will be impacts on passengers interchanging between Manchester Piccadilly Station and both the station car parks and Piccadilly Metrolink stop.

18.3.744 Passengers travelling by car and parking at Manchester Piccadilly Station multi-storey car park, Network Rail Ramp, Network Rail undercroft and Gateway House car park will experience an increase in journey length of up to 775m. However, an accessible motorised link will be provided to help mitigate the increase in journey length during construction.

18.3.745 Interchanging passengers on the Ashton Line will be required to use the Metrolink replacement bus service at Piccadilly Gardens resulting in an increased journey length of up to 700m.

Pedestrians, cyclists and equestrians

18.3.746 The works required to construct the Proposed Scheme will affect routes used by pedestrians, cyclists and equestrians, primarily where construction results in changes to the affected routes. In most cases this will enable the construction of temporary diversions or permanent diversions and over and under-bridges, which will carry the permanent diversions of these PRoW and roadside footways. In some circumstances access to PRoW will need to be managed by way of banksmen and very local realignments. Pedestrians and other non-motorised users may also be affected by changes in traffic levels due, particularly, to construction traffic associated with the Proposed Scheme. Roads with substantial changes in traffic levels are listed above.

MA06

18.3.747 Locations in MA06 where routes used by pedestrians, cyclists and equestrians will be temporarily diverted, realigned or closed are shown below. Table 18-227 summarises the temporary diversions, realignments and extensions to PRoW required to accommodate the construction of the Proposed Scheme.

Table 18-227: MA06 construction changes on PRoW and roadside footways for non-motorised users

PRoW name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
Footpath Millington 2/1 (MA06)	8 users	Users diverted south-east of Chapel Lane satellite compound.	Increase of up to 359m	2 years and 8 months
Footpath Millington 3/3 (MA06)	N/A	Closure where it crosses the route of the Proposed Scheme. Users will be diverted along Footpath Millington 4/2 and Footpath Millington 4/1 to	Increase of up to 566m	2 years and 1 months

PRoW name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
		cross the route of the Proposed Scheme under the Agden Brook viaduct.		
Footpath Millington 5/2 (MA06)	N/A	Users will be diverted via Footpath Millington 4/1 and Boothbank Lane.	Increase of up to 489m	2 years and 1 months
Footpath Millington 4/1 (MA06)	N/A	Temporary realignment, 40m north-east of its existing realignment for 296m.	Increase of up to 76m	2 years and 1 month
Millington Lane (MA06)	4 users	Temporary closure of Millington Lane during the construction of the Millington Lane overbridge. Users will be diverted via Footpath Millington 5/1, Footpath Millington 3/1 and Footpath Millington 4/1.	Increase of up to 399m	1 year and 9 months
Footpath Millington 8/1 (MA06)	1 user	Users will be diverted along Footpath Millington 7/4 and Footpath Millington 7/4.	Increase of up to 331m	2 years
Footpath Millington 7/4 (MA06)	1 user	Diversion via Footpath Millington 6/1 to Footpath Millington 8/1 during the construction of the Footpath Millington accommodation overbridge.	Increase of up to 144m	2 years
Footpath Rostherne 13/1 (MA06)	N/A	Temporary closure until Yarwood Heath Farm accommodation overbridge has been constructed.	No viable alternative route during the temporary closure	3 years
Footpath Rostherne 5/1 (MA06)	N/A	Temporary diversion, with users diverted 200m east	Increase of up to 244m	1 year and 9 months

PRoW name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
		of the current alignment for 470m.		
Footpath Ashley 3/1 (MA06)	N/A	Users diverted to Footpath Rostherne 5/1 from intersection with Footpath Ashley 2/3, south of the M56.	Increase of up to 1.3km	3 years and 6 months
Footpath Ashley 6/5 (MA06)	N/A	Temporary closure during construction. Users will be diverted along Ashley Road and the realigned Mobberley Road.	Increase of up to 1.7km	5 years and 2 months
Footpath Ashley 8/1 (MA06)	N/A	Temporary closure during construction. Users will be diverted along the realigned Ashley Road.	Increase of up to 157m	5 years and 2 months
Footpath Ashley 8/2 (MA06)	N/A	Temporary closure during construction. On completion of construction, Footpath Ashley 8/2 will be permanently diverted.	No viable alternative route during the temporary closure	5 years and 2 months
Footpath Ashley 6/4 (MA06)	N/A	Temporary closure during construction. On completion of construction, Footpath Ashley 6/4 will be permanently diverted.	No viable alternative route during the temporary closure	5 years and 2 months
Castle Mill Lane (MA06)	4 users	Temporary closure during the construction of the Castle Mill Lane overbridge. Users will be diverted via the realigned and existing Brickhill Lane.	Increase of up to 538m	1 year and 3 months
Footpath Ashley 10/1 (MA06)	N/A	Temporary closure during construction.	No viable alternative route during the temporary closure	1 year and 2 months
Footpath Ringway 14 (MA06)	N/A	Temporary closure during construction.	No viable alternative route during the temporary closure	1 year and 2 months

PRoW name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
Footpath Ringway 12 (MA06)	N/A	Temporary closure during construction.	No viable alternative route during the temporary closure	1 year and 2 months
Sunbank Lane (MA06)	N/A	Temporary closure of Sunbank Lane where it crosses the route of the Proposed Scheme during the construction of the Sunbank Lane overbridge. Users will be diverted via Chapel Lane, Tithebarn Road, the A538 Hale Road, the A538 Wilsmlow Road and Sunbank Lane.	Increase of up to 2.8km	6 years and 3 months
Footpath Ringway 11 (MA06)	N/A	Temporary closure during construction.	No viable alternative route during the temporary closure	3 years and 3 months
Hasty Lane (MA06)	46 users	During the construction of the Hasty Lane NMU underpass extension, users will be diverted via the A538 Hale Road and Runger Lane.	Increase of up to 435m	9 months

18.3.748 Permanently diverted PRoW are reported under the operational assessment, although these could also be subject to temporary closure, diversion or realignment during construction.

18.3.749 There will be impacts on 17 PRoW and four roadside footways in the MA06 area. The busiest surveyed route affected will be Hasty Lane (46 users) where journey distance will increase by up to 435m.

18.3.750 There will be temporary closures on seven PRoW.

18.3.751 The longest increases in journey length will be on Sunbank Lane (up to 2.8km), Footpath Ashley 6/5 (up to 1.7km) and Footpath Ashley 3/1 (up to 1.3km).

18.3.752 Permanently diverted PRoW and roadside footways are reported under the operational assessment, although these could also be subject to temporary closure, diversion or realignment during construction.

MA07

18.3.753 Locations in MA07 where routes used by pedestrians, cyclists and equestrians will be temporarily diverted, realigned or closed are shown below. Table 18-228 summarises the

temporary diversions, realignments and extensions to PRoW required to accommodate the construction of the Proposed Scheme.

Table 18-228: MA07 construction changes on PRoW and roadside footways for non-motorised users

PRoW name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
Footpath Manchester 212 (MA07)	66 users	Temporary diversion of a 140m section to the east of the clubhouse at Withington Golf Club. Footpath 212 will be realigned to the east of the existing alignment.	Increase of up to 41m	7 months
Footpath Manchester 211 (MA07)	117 users	Temporary diversion around the perimeter of flood mitigation works.	Increase of up to 146m	4 years and 6 months
Rondin Road (MA07)	183 users	Users will be diverted via the Rondin Road temporary realignment.	Increase of up to 23m	6 years

18.3.754 Permanently diverted PRoW are reported under the operational assessment, although these could also be subject to temporary closure, diversion or realignment during construction.

18.3.755 There will be impacts on two PRoW and one roadside footway in the MA07 area. The busiest surveyed route affected will be Rondin Road (183 users) where journey distance will increase by up to 23m.

18.3.756 The longest increase in journey distance will be on Footpath Manchester 211 (up to 146m).

18.3.757 Permanently diverted PRoW and roadside footways are reported under the operational assessment, although these could also be subject to temporary closure, diversion or realignment during construction.

MA08

18.3.758 Locations in MA08 where routes used by pedestrians, cyclists and equestrians will be temporarily diverted, realigned or closed are shown below. Table 18-229 summarises the temporary diversions, realignments and extensions to roadside footways required to accommodate the construction of the Proposed Scheme.

Table 18-229: MA08 construction changes on PRoW and roadside footways for non-motorised users

Road name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
A635 Fairfield Street and B6469 Fairfield Street (MA08)	7,069 users	Users will be diverted via the A665 Pin Mill Brow,	171m	One year

Road name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
		the A635 Mancunian Way and the diverted B6469 Fairfield Street.		
A635 Mancunian Way southbound (MA08)	N/A	Users will be diverted via the A665 Pin Mill Brow.	220m	Periodic, partial temporary closure of up to one week intervals over a period of three years and six months
Travis Street (MA08)	268 users	Users will be diverted via Adair Street, the A665 Great Ancoats Street, the A635 Mancunian Way and the diverted B6469 Fairfield Street.	Increase of up to 1km	6 years
Temperance Street (MA08)	N/A	Users will be diverted via Hoyle Street.	Increase of up to 39m	2 years
Chapelfield Road (MA08)	N/A	Users will be diverted via Hoyle Street and Temperance Street.	Increase of up to 88m	2 years
Hoyle Street (MA08)	N/A	Users will be diverted via the A635 Mancunian Way, the diverted B6469 Fairfield Street and Chapelfield Road.	Increase of up to 344m	6 years
Betley Street (MA08)	N/A	Users will be diverted via Norton Street and Heyrod Street.	Increase of up to 173m	6 years
Portugal Street (east) (MA08)	N/A	Temporary closure to enable works to facilitate connection to Heyrod Street. On completion of construction, Portugal Street (east) will be reopened.	No viable alternative route during the temporary closure	3 months
Heyrod Street (MA08)	N/A	Temporary closure of the southern end of Heyrod Street to facilitate changes to the junction with Portugal Street East.	No viable alternative route during the temporary closure	3 months

Road name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
		On completion of construction Heyrod Street will be reopened. There are existing business along this section of Heyrod Street for which access will need to be retained.		
River Street (MA08)	N/A	Users will be diverted along Hoyle Street and Chapelfield Road.	Increase of up to 139m	1 year
Chapeltown Street (MA08)	N/A	Users will be diverted via Store Street and the A665 Great Ancoats Street.	Increase of up to 736m	9 months
Helmet Street (MA08)	N/A	Users will be diverted via the A665 Pin Mill Brow, the A635 Mancunian Way, the diverted B6469 Fairfield Street and St. Andrew's Street diversion.	Increase of up to 311m	4 years and 11 months
Adair Street (MA08)	N/A	Users will be diverted via the A665 Great Ancoats Street/Pin Mill Brow, the A635 Mancunian Way and the diverted B6469 Fairfield Street.	Increase of up to 695m	4 months
Store Street (MA08)	2,505 users	Users will be diverted via the A665 Great Ancoats Street, Newton Street and the A6 London Road.	Increase of up to 1.3km	3 years and 4 months
Jutland Street (MA08)	N/A	Users will be diverted via Peak Street, Laystall Street, the A665 Great Ancoats Street and Store Street.	Increase of up to 829m	2 months
Ducie Street (MA08)	N/A	Users will be diverted via Peak Street, Laystall Street, Tariff Street,	Increase of up to 516m	4 years and 3 months

Road name	Surveyed daily usage	Temporary diversion	Change in distance	Duration
		Hilton Street, Newton Street and the A6 London Road.		
Dale Street (MA08)	N/A	Users will be diverted via Newton Street, Lena Street and the A6 London Road.	Increase of up to 265m	2 months

18.3.759 Permanently diverted PRoW are reported under the operational assessment, although these could also be subject to temporary closure, diversion or realignment during construction.

18.3.760 There will be impacts on 17 roadside footways in the MA08 area. The busiest surveyed routes affected will be the A635 Fairfield Street and B6469 Fairfield Street (7,069 users) where journey distance will increase by up to 171m, Store Street (2,505 users) where journey length will increase by up to 1.3km and Travis Street (268 users) where journey length will increase by up to 1km.

18.3.761 The longest increases in journey distance will be on Travis Street (up to 1.5km) and Store Street (up to 1.3km).

18.3.762 Permanently diverted PRoW and roadside footways are reported under the operational assessment, although these could also be subject to temporary closure, diversion or realignment during construction.

18.4 Proposed Scheme operation description

18.4.1 Affected CA have been considered together where there is a degree of commonality between them, principally where there is an HS2 station that affects multiple community areas and a strategic model is being used to inform the assessment. The CA considered together in this section are Hulseheath to Manchester Airport (MA06), Davenport Green to Ardwick (MA07), and Manchester Piccadilly Station (MA08), which include both Manchester Airport High Speed Station and Manchester Piccadilly High Speed Station.

18.4.2 This section provides an overview of the impacts resulting from the operation of the Proposed Scheme.

MA06 - overview

18.4.3 In MA06, the route of the Proposed Scheme will be approximately 10.7km in length and will lie within the local authority areas of Cheshire East Council (CEC), Trafford Metropolitan Borough Council (TMBC), Manchester City Council (MCC) and the Greater Manchester Combined Authority (GMCA).

18.4.4 The Proposed Scheme within the MA06 area has four main components:

- the route of the Proposed Scheme, continuing from the north-eastern boundary of the Pickmere to Agden and Hulseheath area (MA03) and travelling in a north-east direction to the Davenport Green to Ardwick (MA07) area;
- NPR Manchester to Liverpool junction: provisions that will allow for future connections between HS2 services and future NPR services between Manchester and Liverpool;
- Ashley Infrastructure Maintenance Base - Rail (IMB-R): an infrastructure maintenance facility for the Proposed Scheme, occupying land adjacent to the route of the Proposed Scheme, to the south of the M56 and west of the Mid-Cheshire Line; and
- Manchester Airport High Speed Station: an intermodal station to provide high speed rail connections to Manchester Airport and provisions for future NPR services and Metrolink services.

18.4.5 These components and their key features are set out in the following sections.

Manchester Airport High Speed Station and approaches

18.4.6 In MA06, the route of the Proposed Scheme will continue from the Pickmere to Agden and Hulseheath area (MA03) on the Hulseheath north embankment before rising onto the Agden Brook Viaduct. It will continue into the Millington cutting before transitioning via the Rostherne cutting. The route continues from Rostherne cutting, Blackburn's Brook north Viaduct and then onto Birkin Brook embankment.

18.4.7 The route will continue from Birkin Brook embankment onto Ashley embankment, before continuing onto Mid-Cheshire (railway), and Mobberley Road Viaduct, and onto the Thorns

Green embankment. From Thorns Green embankment it will descend into Thorns Green cutting before rising onto the River Bollin south embankment. It will then continue onto the River Bollin east Viaduct, River Bollin north embankment, Halebank cutting, M56 cutting and into the M56 east tunnel. The route of the Proposed Scheme will continue from the M56 east tunnel, through the Manchester Airport High Speed Station cutting, before entering the Manchester Tunnel portal (MA07 area).

Manchester Airport High Speed Station

18.4.8 The proposed Manchester Airport High Speed Station will provide an intermodal interchange for HS2, Manchester Airport, Metrolink, cars, taxis, buses, cycles, and pedestrians. Manchester Airport High Speed Station will include sufficient concourse and platform space to accommodate long-term growth in rail passenger demand up to 2046 and allows for additional loading of train services and for growth beyond 2046, including passive provision and capacity for future NPR and Metrolink services.

18.4.9 The station will have three main levels, all accessible via escalators and lifts: the HS2 and NPR platforms below ground; the ground level concourse; and the mezzanine level for future Metrolink provision.

18.4.10 The key features of the functional design and layout of Manchester Airport High Speed Station include:

- a central concourse, up to 11m above existing ground level, for interchange and access to waiting areas, passenger information and ticketing facilities;
- a roof and canopy structure, up to 228m in length, 98m in width, and 30m above existing ground level, spanning the length of the central concourse and provision for a Metrolink station;
- two island platforms, up to 415m in length and 3m below existing ground level, providing four platform faces to accommodate HS2 services and future NPR services; and
- eastern and western forecourts with entrances to the Manchester Airport High Speed Station.

18.4.11 Surface access to the station will be provided as follows:

- a new junction at the M56 junction 6 and a new gyratory to the north of the A538 Hale Road will provide access to the Manchester Airport High Speed Station;
- two new access roads, either side of the Manchester Airport High Speed Station, accessed via the A538 Hale Road gyratory, to provide access to the eastern and western entrances;
- private vehicle pick-up/drop-off located at the eastern forecourt;
- cycle and other non-motorised user parking, bus, taxi and private hire pick-up/drop-off located at the western forecourt;
- two new multi-storey car parks located to the south-east and south-west of the Manchester Airport High Speed Station;

- public realm spaces will be created around the station, including roadside footways and a new pedestrian/cycle route to the west of Manchester Airport High Speed Station;
- a new underpass at M56 junction 6/A538 Hale Road/Station Access gyratory, known as the M56/A538 Wilmslow Road offline non-motorised-user underpass, will be constructed to provide access from the south-east and south-west; and
- the M56 Hasty Lane underpass that provides access from the north-east will be extended to accommodate the Proposed Scheme.

Highway network

18.4.12 The route of the Proposed Scheme will introduce several sections of new, diverted, and modified highway in the MA06 area.

18.4.13 Changes to the existing road network will be required at the M56 junction 6 to accommodate Manchester Airport High Speed Station, including:

- a new gyratory to the north of the A538 Hale Road for eastbound traffic and for access to Manchester Airport High Speed Station;
- a modified junction at the A538 Hale Road/M56 junction 6 west (northbound slip roads)/A538 Wilmslow Road;
- a modified junction at the A538 Wilmslow Road/M56 junction 6 east (southbound slip roads)/Runger Lane;
- widening on the A538 Wilmslow Road between the western and eastern sides of the M56 junction 6 from two lanes in each direction to four lanes in each direction;
- realignment of the A538 Hale Road with access to residential properties maintained via a new service road, the A538 Hale Road service road (south); and
- closure of Hasty Lane 135m north-west of A538 Hale Road overbridge, with access to residential properties maintained via a new service road, the A538 Hale Road service road (north).

18.4.14 Other changes to the existing highway network within the MA06 area include:

- permanent vertical realignment of a section of Millington Lane, 165m north-west of Millington Hall Lane for 296m, crossing the route of the Proposed Scheme on Millington Lane overbridge;
- permanent vertical realignment of the A556, between the junction with Cherry Tree Lane and the junction with the M56 (junction 8), crossing the route of the Proposed Scheme on the A556 Chester Road overbridge;
- permanent closure of Tom Lane for motorised vehicles where it crosses the Proposed Scheme, 35m south of the junction with Yarwoodheath Lane. Tom Lane will be retained as a private access road for Yarwood Heath Farm;
- permanent closure of a section of Ashley Road, north of the Proposed Scheme, 40m west of Stock Farm. A turning head will be provided to facilitate vehicle access on the retained section of Ashley Road;

- permanent diversion of a section of Ashley Road, between Birkin Farm and the junction with Mobberley Road/Cow Lane, joining the realigned Mobberley Road 250m north-east of Arden Lodge. Users of the diverted Ashley Road will cross the route of the Proposed Scheme underneath Mid-Cheshire (Railway) and Mobberley Road viaduct;
- permanent closure of Lamb Lane where it will cross the route of the Proposed Scheme west of Ashley Road auto-transformer station. This will also include the closure of the access from Stock Farm to Lamb Lane. Access to Stock Farm will be maintained from Ashley Road north of the Proposed Scheme;
- permanent realignment of Mobberley Road between Arden Lodge and Hough Green Farm, crossing over the Mid-Cheshire Line via the Mobberley Road offline overbridge;
- permanent closure of Brickhill Lane where it crosses the route of the Proposed Scheme and diversion of the northern section of Brickhill Lane, onto the realigned Castle Mill Lane before crossing the route of the Proposed Scheme on Castle Mill Lane overbridge;
- permanent realignment of Castle Mill Lane between Chapel House Farm and Thorns Green Farm, crossing the route of the Proposed Scheme on Castle Mill Lane overbridge;
- permanent realignment of Sunbank Lane between Sunbank Wood and Sunbank Lane overbridge, crossing the route of the Proposed Scheme on Sunbank Lane overbridge; and
- permanent realignment of Thorley Lane, between Thorley Lane overbridge and the junction with Shay Lane, crossing the route of the Proposed Scheme on Thorley Lane overbridge.

Avoidance and mitigation measures

18.4.15 The following measures have been included as part of the design to avoid or reduce impacts on transport users:

- provision of sufficient concourse and platform space to accommodate long-term growth in rail passenger demand up to 2046, and allowance for additional loading of train services and for growth beyond 2046 including passive provision and capacity for future NPR services;
- provision for access by sustainable modes, including walking and cycling to promote non-car access, including a new shared pedestrian/cycle route to the west of Manchester Airport High Speed Station; a new underpass at M56 junction 6/A538 Hale Road/Station Access gyratory, known as the M56/A538 Wilmslow Road offline non-motorised-user underpass; an extension to the M56 Hasty Lane underpass; and provision of bicycle and other non-motorised user parking spaces at Manchester Airport High Speed Station;
- provision of dedicated bus bays, including four bays for public buses and one bay for an airport shuttle bus bay;
- provision of two new multi-storey car parks adjacent to Manchester Airport High Speed Station;

- provision of dedicated taxi, private hire vehicle, and private vehicle drop-off and pick-up facilities sized to accommodate the anticipated future demand;
- changes to the highway and public transport network, including a new gyratory to the north of the A538 Hale Road with access to the Manchester Airport High Speed Station;
- a modified junction at the M56 junction 6 associated with the new gyratory at the A538 Hale Road;
- replacement, diversion or realignment of PRoW; and
- reinstatement of roads on or close to their existing alignments, where reasonably practicable.

18.4.16 A station travel plan for Manchester Airport High Speed Station will be developed and will include measures that aim to reduce the impacts and effects of traffic and transport movements.

MA07 - overview

18.4.17 In MA07, the route of the Proposed Scheme will be approximately 13.4km in length and will lie within the local authority areas of MCC and the GMCA.

18.4.18 The Proposed Scheme within the MA07 area has two main components:

- the route of the Proposed Scheme, continuing from the northern boundary of the Hulseheath to Manchester Airport area (MA06) proceeding in a northerly direction to the Manchester Piccadilly Station area (MA08); and
- NPR Manchester to Leeds junction: provisions that will allow for future connections between HS2 services and future NPR services between Manchester and Leeds.

18.4.19 These components and their key features are set out in the following sections.

Manchester tunnel south portal to Manchester tunnel north portal

18.4.20 The majority of the route of the Proposed Scheme through the MA07 area will be in tunnel. From MA06, the Proposed Scheme enters MA07 via the Manchester Airport High Speed Station cutting retaining wall north. From here it enters the Manchester tunnel south porous portal. The Manchester tunnel will run from Davenport Green in the south and travel north towards Withington and Longsight, before emerging from the Manchester tunnel north porous portal in Ardwick. The route will then continue in the Ardwick south cutting retaining wall, Ardwick box structure and the Ardwick north cutting retaining wall northwest across Ardwick Depot towards Manchester city centre and Manchester Piccadilly High Speed Station in the MA08 area.

18.4.21 Key features of this section will be:

- Manchester tunnel south portal auto-transformer station, with access provided from the realigned Thorley Lane;

- Altrincham Road vent shaft and headhouse, with access provided from the A560 Altrincham Road;
- Palatine Road vent shaft and two headhouses, with access provided from the B5167 Palatine Road;
- Wilmslow Road vent shaft and headhouse, with access provided from the B5093 Wilmslow Road;
- Birchfields Road vent shaft and headhouse, with access provided from Birchfields Road;
- Manchester tunnel north portal, with access provided from Rondin Road; and
- a pumping station and pumping station storage tank for railway, highway and land drainage, to the south of the route of the Proposed Scheme, with access also provided from Rondin Road.

Highway network

18.4.22 The route of the Proposed Scheme will introduce several sections of new, diverted, and modified highway in the MA07 area.

18.4.23 Changes to the existing road network will be required, including:

- permanent closure of Hooper Street where it crosses the route of the Proposed Scheme;
- permanent closure of Glenbarry Street where it crosses the route of the Proposed Scheme;
- permanent closure of Rondin Close where it crosses the route of the Proposed Scheme; and
- permanent closure of the northern end of the A665 Midland Street where it crosses the route of the Proposed Scheme.

MA08 - overview

18.4.24 In MA08, the route of the Proposed Scheme will be approximately 1km in length and will comprise the terminus of the HS2 Manchester spur. Within this area provision will be made to enable future connection to future NPR services. The Manchester Piccadilly area is located within the local authority areas of MCC and GMCA. The southern boundary of the area is located approximately 40m west of the A665 Midland Street and the area extends to the north and west of the existing Manchester Piccadilly Station.

18.4.25 The Proposed Scheme within the MA08 area has five main components:

- the route of the Proposed Scheme, continuing from the northern boundary of the Davenport Green to Ardwick (MA07) area and terminating at the Manchester Piccadilly High Speed Station;
- Manchester Piccadilly High Speed Station: a new six-platform terminus station, including provision for future NPR services, adjoining the existing Manchester Piccadilly Station to the north;

- Metrolink realignment and enhancement: relocation of the existing Piccadilly Metrolink stop beneath the Manchester Piccadilly High Speed Station, and enhancement from a two-platform to a four-platform tram stop; additionally, the building of a new Metrolink stop, called Piccadilly Central, to the north of Manchester Piccadilly High Speed Station;
- NPR Manchester to Leeds junction: to provide for a future NPR route between Manchester and Leeds to connect to HS2; and
- modifications to the existing Manchester Piccadilly Station to allow integration of HS2 services at the new Manchester Piccadilly High Speed Station with conventional rail services, future NPR services, Metrolink and buses serving the Manchester Piccadilly Station area.

18.4.26 These components and their key features are set out in the following sections.

Manchester Piccadilly Station approach

18.4.27 The route of the Proposed Scheme within this section will extend from west of the A665 Midland Street and proceeding in a northerly direction, through Ardwick North cutting retaining wall and along the Piccadilly Approach Viaduct and the Piccadilly Station Viaduct, towards the Manchester Piccadilly High Speed Station, where the route will terminate.

Manchester Piccadilly High Speed Station

18.4.28 The proposed Manchester Airport High Speed Station will provide an intermodal interchange for HS2, other long-distance and regional rail services, Metrolink, cars, taxis, buses, cycles, and pedestrians. Manchester Piccadilly High Speed Station will include sufficient concourse and platform space to accommodate long-term growth in rail passenger demand up to 2046 and allows for additional loading of train services and for growth beyond 2046, including passive provision and capacity for future NPR services and Metrolink services.

18.4.29 The key features of the functional design and layout of Manchester Piccadilly High Speed Station include:

- a roof structure, up to 30m in height, 396m in length above the new station platforms and concourse areas to the west of the platforms, allowing light into the station;
- a canopy structure, up to 15m in height above ground, extending 160m beyond the station roof over the eastern end of the station platforms;
- six platforms, each 415m in length and up to 11m in height above ground level, arranged into three island platforms which will be 13m wide;
- a shared concourse connecting the Manchester Piccadilly High Speed Station to the existing Manchester Piccadilly Station;
- a western concourse with a ground level connection with direct pedestrian access to and from the city centre via Station Approach and north of Gateway House, and two mezzanine areas with customer lounges and the opportunity to link these to the existing

Manchester Piccadilly Station upper retail level; an eastern concourse below platforms with access via escalators and lifts;

- relocation of the existing Piccadilly Metrolink stop beneath Manchester Piccadilly High Speed Station and upgraded from two platforms to four platforms; and
- a new Metrolink stop, comprising of two platforms, immediately south-east of the Manchester Piccadilly High Speed Station, called Piccadilly Central.

18.4.30 Surface access to the station will be provided as follows:

- a new multi-modal access road to the north of the Manchester Piccadilly High Speed Station, New Sheffield Street, providing access for shuttle buses, private vehicle pick-up/drop-off and taxi/private hire pick-up/drop-off, and a new pedestrian-cycleway along New Sheffield Street;
- entrances to the north from New Sheffield Street, to the west from the station approach ramp, and to the east from B6469 Fairfield Street/Travis Street;
- an eastern forecourt accessed via B6469 Fairfield Street/Travis Street providing access for private vehicle pick-up/drop-off and taxi/private hire pick-up/drop-off, and serving as a non-motorised user route through the site to enable access across Pin Mill Brow;
- a north-south pedestrian route underneath the existing Manchester Piccadilly Station platforms and HS2 platforms to connect the existing Fairfield Street forecourt with HS2 services and Metrolink;
- an east-west pedestrian route to connect the western station approach and the eastern forecourt;
- cycle and other non-motorised user parking facilities located at cycle hubs at the east and west entrances to the station, and further on-street parking facilities around the station;
- two partially above-ground multi-storey car parks, adjacent to the Manchester Piccadilly High Speed Station on Adair Street and accessed via Adair Street;
- two loading bays, accessed via New Sheffield Street;
- public realm spaces will be created along New Sheffield Street, including roadside footways and a new cycleway; and
- Metrolink services via the relocated Piccadilly Metrolink stop and the new Piccadilly Central Metrolink stop.

Modifications to the existing Manchester Piccadilly Station

18.4.31 The Manchester Piccadilly High Speed Station will be integrated into the existing Manchester Piccadilly Station concourse to form a shared concourse. Works within the existing Manchester Piccadilly Station include the provision of new signage and information systems as well as the relocation of existing Network Rail offices and assets. There will be alterations to the accesses for the Metrolink tram facilities at the existing Manchester Piccadilly Station.

There will also be the removal of parking facilities in the Manchester Piccadilly Station multi-storey car park on Boad Street, the Network Rail undercroft and the Network Rail Ramp, which will be re-provided in two multi-storey parking facilities as part of the Manchester Piccadilly High Speed Station.

Highway network

18.4.32 The route of the Proposed Scheme will introduce several sections of new, diverted, and modified highway in the MA08 area.

18.4.33 Changes to the existing road network will be required to accommodate Manchester Piccadilly High Speed Station, including:

- a new gyratory linking the A665 Pin Mill Brow/Chancellor Lane, the A635 Ashton Old Road/Fairfield Street/Mancunian Way and B6469 Fairfield Street, known as the A635/A665 Pin Mill Brow gyratory;
- permanent realignments associated with the A635/A665 Pin Mill Brow gyratory including realignment of the A665 Pin Mill Brow, the A635 Ashton Old Road and the A635 Mancunian Way;
- permanent diversions associated with the A635/A665 Pin Mill Brow gyratory including diversion of the A665 Chancellor Lane, the A635 Fairfield Street and B6469 Fairfield Street;
- a new multi-modal access road, New Sheffield Street, that will run parallel to, and north of, Manchester Piccadilly High Speed Station;
- permanent closure of Sheffield Street which will be replaced by New Sheffield Street;
- permanent closure of Baird Street from its junction with Sheffield Street to where it crosses New Sheffield Street;
- permanent diversion of Boad Street to run parallel and north of the proposed Piccadilly Station between Store Street and New Sheffield Street;
- permanent diversion of St. Andrew's Street which will form part of New Sheffield Street;
- permanent closure of a 26m section of St. Andrew’s Square at the southern end where it meets New Sheffield Street;
- a new one-way system will run between New Sheffield Street, St. Andrew’s Square and Adair Street to provide access to the new car parks;
- permanent realignment of Adair Street between Betley Street and Travis Street, with a new junction connecting with New Sheffield Street at its current junction with Travis Street;
- a modified junction at the A665 Great Ancoats Street/Adair Street junction to allow all traffic-movements and provide access to two new multi-storey car parks accessed off Adair Street;

- closure of Travis Street, between the diverted B6469 Fairfield Street and New Sheffield Street, associated with a new eastern forecourt which will be accessed via the diverted B6469 Fairfield Street/Travis Street;
- permanent closure of an 85m section of Store Street at the southern end between the A6 London Road and Boad Street, to facilitate the connection to New Sheffield Street and Manchester Piccadilly High Speed Station;
- permanent realignment of the A6 London Road (within the existing highway boundary) to accommodate realignment of Ducie Street;
- permanent closure of the southern 100m section of Helmet Street from its junction with St. Andrew's Street;
- permanent realignment of Heyrod Street and the junction with Portugal Street East to accommodate the new multi-storey car parks on Adair Street;
- permanent realignment of the western end of Chapeltown Street junction with Sparkle Street to provide a new junction with the proposed New Sheffield Street;
- permanent realignment of Ducie Street (within the existing highway boundary) between Dale Street and the A6 London Road to accommodate a new junction with the proposed New Sheffield Street;
- permanent closure of North Western Street (both north-west and south-east sections);
- permanent closure of Mellor Street as a public highway. Mellor Street will form part of the new access road to the Network Rail compound; and
- permanent closure of Cresbury Street, Dark Lane, William Street, Mill Green Street, Adlington Street, Crane Street, Coronation Square, Blackett Street, Elbe Street and Raven Street.

Avoidance and mitigation measures

18.4.34 The following measures have been included as part of the design to avoid or reduce impacts on transport users:

- provision of sufficient concourse and platform space to accommodate long-term growth in rail passenger demand up to 2046, and allows for additional loading of train services and for growth beyond 2046 including passive provision and capacity for future NPR services;
- provision for access by sustainable modes, such as walking and cycling to promote non-car access, including new pedestrian access, a new cycleway along New Sheffield Street and provision of bicycle and other NMU parking spaces;
- changes to the public transport network to provide electric shuttle bus stops on New Sheffield Street and space provided for a bus/coach interchange facility at the Eastern Forecourt;
- improved access to Metrolink services, including relocation of Piccadilly Metrolink stop beneath Manchester Piccadilly High Speed Station and provision for a new Metrolink stop

immediately south-east of the Manchester Piccadilly High Speed Station, called Piccadilly Central;

- provision of new multi-storey car parks on Adair Street adjacent to Manchester Piccadilly High Speed Station;
- provision of dedicated taxi, private hire vehicle and private vehicle drop-off and pick-up facilities sized to accommodate the anticipated future demand;
- changes to the highway network to provide access to Manchester Piccadilly High Speed Station, including a new gyratory at the A665 Pin Mill Brow junction;
- replacement, diversion or realignment of roadside footways; and
- reinstatement of roads on or close to their existing alignments, where reasonably practicable.

18.4.35 A station travel plan for Manchester Piccadilly High Speed Station will be developed and will include measures that aim to reduce the impacts and effects of traffic and transport movements.

18.5 Proposed Scheme assessment of operation impacts

18.5.1 This section provides an overview of the impacts resulting from the operation of the Proposed Scheme. HS2 Phase Two services are expected to commence in 2038. Operation of the Proposed Scheme will not have any cumulative impacts resulting from the operation of the Proposed Scheme with HS2 Phase 2a.

Key operation transport issues

18.5.2 The operational assessment takes account of all of the impacts of the Proposed Scheme in the MA06-08 area. The main potential operational impacts of the Proposed Scheme are:

- increases to rail passengers arriving and departing from Manchester Airport High Speed Station and Manchester Piccadilly High Speed Station with consequential increase in onwards travel by existing rail services, tram, bus, taxi/private hire vehicles, private car, cycling and walking;
- permanent road closures and associated diversions around the Manchester Airport High Speed Station in MA06, including modified junction at the M56 junction 6 and a new gyratory to the north of the A538 Hale Road with access to Manchester Airport High Speed Station; and
- permanent road closures and associated diversions around the Manchester Piccadilly High Speed Station in MA08, including a new gyratory at the A665 Pin Mill Brow junction linking the A665 Pin Mill Brow/Chancellor Lane, the A635 Ashton Old Road/Fairfield Street/Mancunian Way and B6469 Fairfield Street.

18.5.3 The design of the Proposed Scheme and its operation creates a number of beneficial impacts. Rail passengers at Manchester Airport High Speed Station and Manchester Piccadilly High Speed Station will benefit from increased capacity and improved journey times to London, the Midlands and beyond.

18.5.4 There will be benefits of reduced crowding on existing rail services and benefits from released capacity of existing long-distance services.

18.5.5 The Proposed Scheme will add to the demand for pedestrian movements on the roadside footways and pedestrian crossings around Manchester Airport High Speed Station and Manchester Piccadilly High Speed Station.

Public transport

Changes in demand

18.5.6 The following sections set out the changes in demand for rail passengers for Manchester Airport High Speed Station and Manchester Piccadilly High Speed Station.

18.5.7 As there is currently no provision for long-distance services at the existing Manchester Airport Station that would potentially transfer to HS2 south of Manchester Airport, there is no comparative baseline or future baseline data. For Manchester Piccadilly High Speed Station, the existing Manchester Piccadilly Station provides a comparative baseline and future baseline.

18.5.8 Passenger demand for future year HS2 and long-distance rail passengers is derived from Department of Transport's (DfT) PLANET Framework Model (PFMv9.6).

Manchester Airport High Speed Station passengers

18.5.9 Annual HS2 passenger use of Manchester Airport High Speed Station in 2038 and 2046 is forecast to be 5.5 million passengers in 2038, increasing to 5.9 million in 2046. Forecast use of the Manchester Airport High Speed Station is set out in Table 18-230, Table 18-231 and Table 18-232 for daily, AM peak hour (08:00–09:00) and PM peak hour (17:00–18:00), respectively, and can be summarised as:

- by 2038 with the Proposed Scheme, Manchester Airport High Speed Station is forecast to be used by over 17,500 HS2 passengers per day, with more than 1,600 passengers in the AM peak hour (08:00–09:00), and in excess of 1,800 passengers in the PM peak hour (17:00–18:00); and
- by 2046, total HS2 passengers are forecast to be over 18,700 per day, with more than 1,700 passengers in the AM peak hour (08:00–09:00), and in excess of 1,900 passengers during the PM peak hour (17:00–18:00).

Table 18-230: Manchester Airport High Speed Station daily rail passengers - Proposed Scheme

			2038 Proposed Scheme	2046 Proposed Scheme	Difference %
Long distance rail	**HS2**	Boarding	8,783	9,354	6.5%
		Alighting	8,791	9,355	6.4%
		Total	**17,574**	**18,709**	**6.5%**
	Other	Boarding		-	-
		Alighting	-	-	-
		Total	-	-	-
	Total long distance		**17,574**	**18,709**	**6.5%**
Suburban rail		Boarding	-	-	-
		Alighting	-	-	-

			2038 Proposed Scheme	2046 Proposed Scheme	Difference %
	Total suburban		-	-	-
Total rail		Boarding	8,783	9,354	6.5%
		Alighting	8,791	9,355	6.4%
	Total rail		**17,574**	**18,709**	**6.5%**

Table 18-231: Manchester Airport High Speed Station AM peak hour (08:00–09:00) rail passengers - Proposed Scheme

			2038 Proposed Scheme	2046 Proposed Scheme	Difference %
Long distance rail	**HS2**	Boarding	853	908	6.5%
		Alighting	837	890	6.4%
		Total	**1,689**	**1,798**	**6.5%**
	Other	Boarding	-	-	-
		Alighting	-	-	-
		Total	**-**	**-**	**-**
	Total long distance		**1,689**	**1,798**	**6.5%**
Suburban rail		Boarding	-	-	-
		Alighting	-	-	-
	Total suburban		**-**	**-**	**-**
Total rail		Boarding	853	908	6.5%
		Alighting	837	890	6.4%
	Total rail		**1,689**	**1,798**	**6.5%**

Table 18-232: Manchester Airport High Speed Station PM peak hour (17:00–18:00) rail passengers - Proposed Scheme

			2038 Proposed Scheme	2046 Proposed Scheme	Difference %
Long distance rail	**HS2**	Boarding	869	926	6.6%
		Alighting	970	1,032	6.4%
		Total	**1,839**	**1,958**	**6.5%**
	Other	Boarding	-	-	-
		Alighting	-	-	-
		Total	**-**	**-**	**-**
	Total long distance		**1,839**	**1,958**	**6.5%**
Suburban rail		Boarding	-	-	-
		Alighting	-	-	-
	Total suburban		**-**	**-**	**-**
Total rail		Boarding	869	926	6.6%
		Alighting	970	1,032	6.4%
	Total rail		**1,839**	**1,958**	**6.5%**

Manchester Piccadilly High Speed Station passengers

18.5.10 Use of Manchester Piccadilly Station will increase substantially in the baseline without the Proposed Scheme to 2038 and 2046.

18.5.11 Annual HS2 passenger use of Manchester Piccadilly High Speed Station in 2038 and 2046 is forecast to be 11.1 million passengers in 2038, increasing to 11.8 million in 2046. Forecast use of the Manchester Piccadilly High Speed Station, is set out in Table 18-233, Table 18-234, and Table 18-235 for daily, AM peak hour (08:00–09:00) and PM peak hour (17:00–18:00), respectively.

18.5.12 By 2038 with the Proposed Scheme, Manchester Piccadilly Station and Manchester Piccadilly High Speed Station are forecast to be used by just under 143,000 passengers per day, a 14% increase on the future baseline. HS2 will account for over 35,000 passengers per day, with just under 3,300 passengers in the AM peak hour (08:00–09:00) and just under 3,800 passengers in the PM peak hour (17:00–18:00). Passenger demand on other long-distance rail services will fall by 32% from over 56,000 passengers per day in the future baseline to just over 38,000 passengers per day with the Proposed Scheme, however, overall long-distance rail demand will increase by 30% from 56,000 passengers per day to over 73,000 passengers per day. Suburban rail demand will remain largely unchanged, rising from 68,500 passengers per day to over 69,500 passengers per day.

18.5.13 By 2046 with the Proposed Scheme, Manchester Piccadilly Station and Manchester Piccadilly High Speed Station are forecast to be used by just under 148,000 passengers per day, a 15% increase on the future baseline. HS2 will account for over 37,000 passengers per day, with just under 3,500 passengers in the AM peak hour (08:00–09:00) and just under 4,000 passengers in the PM peak hour (17:00–18:00). Passenger demand on other long-distance rail services will fall by 32% from just under 59,000 passengers per day in the future baseline to just under 40,000 passengers per day with the Proposed Scheme, however, overall long-distance rail demand will increase by 31% from just under 59,000 passengers per day to over 77,000 passengers per day. Suburban rail demand will remain largely unchanged, rising from just under 69,300 passengers per day to just under 70,300 passengers per day.

Table 18-233: Manchester Piccadilly Station and Manchester Piccadilly High Speed Station combined daily rail passengers - future baseline and Proposed Scheme

			2038 baseline	2038 Proposed Scheme	Difference %	2046 baseline	2046 Proposed Scheme	Difference %
Long distance rail	**HS2**	Boarding	**-**	**17,573**	**-**	**-**	**18,694**	**-**
		Alighting	-	17,589	-	-	18,696	-
		Total	**-**	**35,162**	**-**	**-**	**37,390**	**-**
	Other	Boarding	28,435	19,273	-32%	29,617	20,034	-32%
		Alighting	27,986	18,994	-32%	29,139	19,757	-32%
		Total	**56,421**	**38,268**	**-32%**	**58,756**	**39,792**	**-32%**
	Total long distance		**56,421**	**73,430**	**30%**	**58,756**	**77,182**	**31%**

			2038 baseline	2038 Proposed Scheme	Difference %	2046 baseline	2046 Proposed Scheme	Difference %
Suburban rail		Boarding	34,080	34,746	2%	34,458	35,131	2%
		Alighting	34,435	34,785	1%	34,840	35,160	1%
	Total suburban		**68,514**	**69,532**	**1%**	**69,299**	**70,291**	**1%**
Total rail		Boarding	62,515	71,593	15%	64,076	73,860	15%
		Alighting	62,421	71,369	14%	63,979	73,613	15%
	Total rail		**124,936**	**142,961**	**14%**	**128,055**	**147,473**	**15%**

Table 18-234: Manchester Piccadilly Station and Manchester Piccadilly High Speed Station combined AM peak hour (08:00–09:00) rail passengers - future baseline and Proposed Scheme

			2038 baseline	2038 Proposed Scheme	Difference %	2046 baseline	2046 Proposed Scheme	Difference %
Long distance rail	**HS2**	Boarding	-	1,539	-	-	1,638	-
		Alighting	-	1,729	-	-	1,837	-
		Total	**-**	**3,268**	**-**	**-**	**3,475**	**-**
	Other	Boarding	2,491	1,688	-32%	2,594	1,755	-32%
		Alighting	2,751	1,867	-32%	2,864	1,942	-32%
		Total	**5,241**	**3,555**	**-32%**	**5,458**	**3,697**	**-32%**
	Total long distance		**5,241**	**6,823**	**30%**	**5,458**	**7,172**	**31%**
Suburban rail		Boarding	2,985	3,044	2%	3,018	3,077	2%
		Alighting	3,384	3,419	1%	3,424	3,456	1%
	Total suburban		**6,370**	**6,462**	**1%**	**6,443**	**6,533**	**1%**
Total rail		Boarding	5,476	6,271	15%	5,613	6,470	15%
		Alighting	6,135	7,014	14%	6,288	7,235	15%
	Total rail		**11,611**	**13,286**	**14%**	**11,901**	**13,705**	**15%**

Table 18-235: Manchester Piccadilly Station and Manchester Piccadilly High Speed Station combined PM peak hour (17:00–18:00) rail passengers - future baseline and Proposed Scheme

			2038 baseline	2038 Proposed Scheme	Difference %	2046 baseline	2046 Proposed Scheme	Difference %
Long distance rail	**HS2**	Boarding	-	1,946	-	-	2,070	-
		Alighting	-	1,809	-	-	1,923	-
		Total	**-**	**3,755**	**-**	**-**	**3,993**	**-**
	Other	Boarding	3,148	2,134	-32%	3,279	2,218	-32%
		Alighting	2,879	1,954	-32%	2,997	2,032	-32%
		Total	**6,027**	**4,088**	**-32%**	**6,276**	**4,250**	**-32%**
	Total long distance		**6,027**	**7,843**	**30%**	**6,276**	**8,243**	**31%**
Suburban rail		Boarding	3,773	3,847	2%	3,815	3,889	2%
		Alighting	3,542	3,578	1%	3,584	3,616	1%
	Total suburban		**7,315**	**7,425**	**2%**	**7,398**	**7,506**	**1%**

			2038 baseline	2038 Proposed Scheme	Difference %	2046 baseline	2046 Proposed Scheme	Difference %
Total rail		Boarding	6,921	7,926	15%	7,094	8,177	15%
		Alighting	6,420	7,341	14%	6,581	7,572	15%
	Total rail		**13,341**	**15,267**	**14%**	**13,675**	**15,749**	**15%**

18.5.14 The introduction of HS2 services at Manchester Airport High Speed Station and Manchester Piccadilly High Speed Station will result in the abstraction of passengers from other long-distance rail services including existing services at the central Manchester stations of Manchester Piccadilly, Manchester Victoria, Oxford Road and Deansgate, as well as other stations along existing routes to Crewe and the south of England, such as Stockport. HS2 will provide an alternative, faster journey and therefore some passengers will choose to use HS2 services over existing services. This abstraction will also include the transfer of some journeys from the existing Manchester Piccadilly Station to the Manchester Airport High Speed Station, particularly for the residents of south Manchester and north Cheshire as the Manchester Airport High Speed Station is a closer alternative.

18.5.15 Figure 18-55, Figure 18-56 and Figure 18-57 set out the daily peak, AM peak hour (08:00–09:00) and PM peak hour (17:00–18:00) passenger flows for 2038 and 2046 for Manchester Piccadilly Station and Manchester Airport High Speed Station.

Figure 18-55: Daily HS2 demand at Manchester Piccadilly Station and Manchester Airport HS2 Station

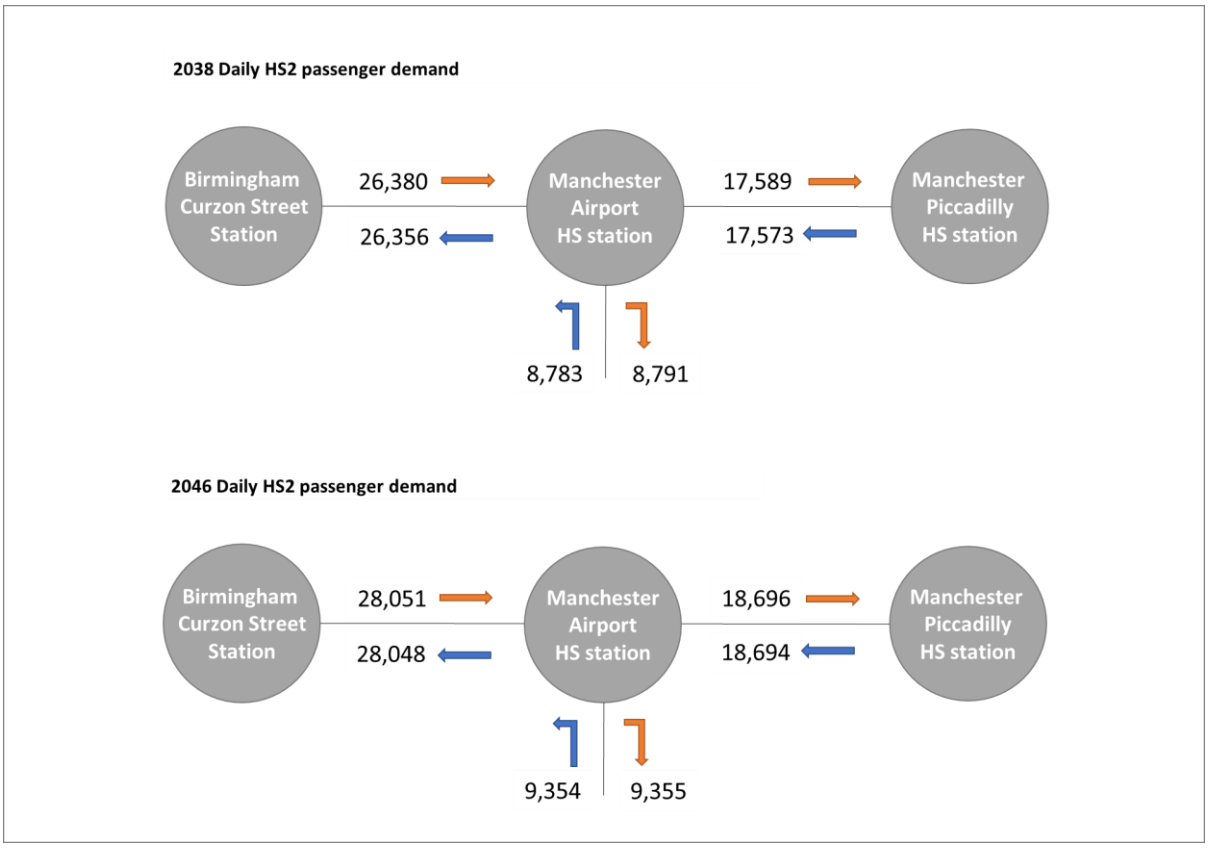


Figure 18-56: AM peak hour (08:00–09:00) HS2 demand at Manchester Piccadilly Station and Manchester Airport HS2 Station

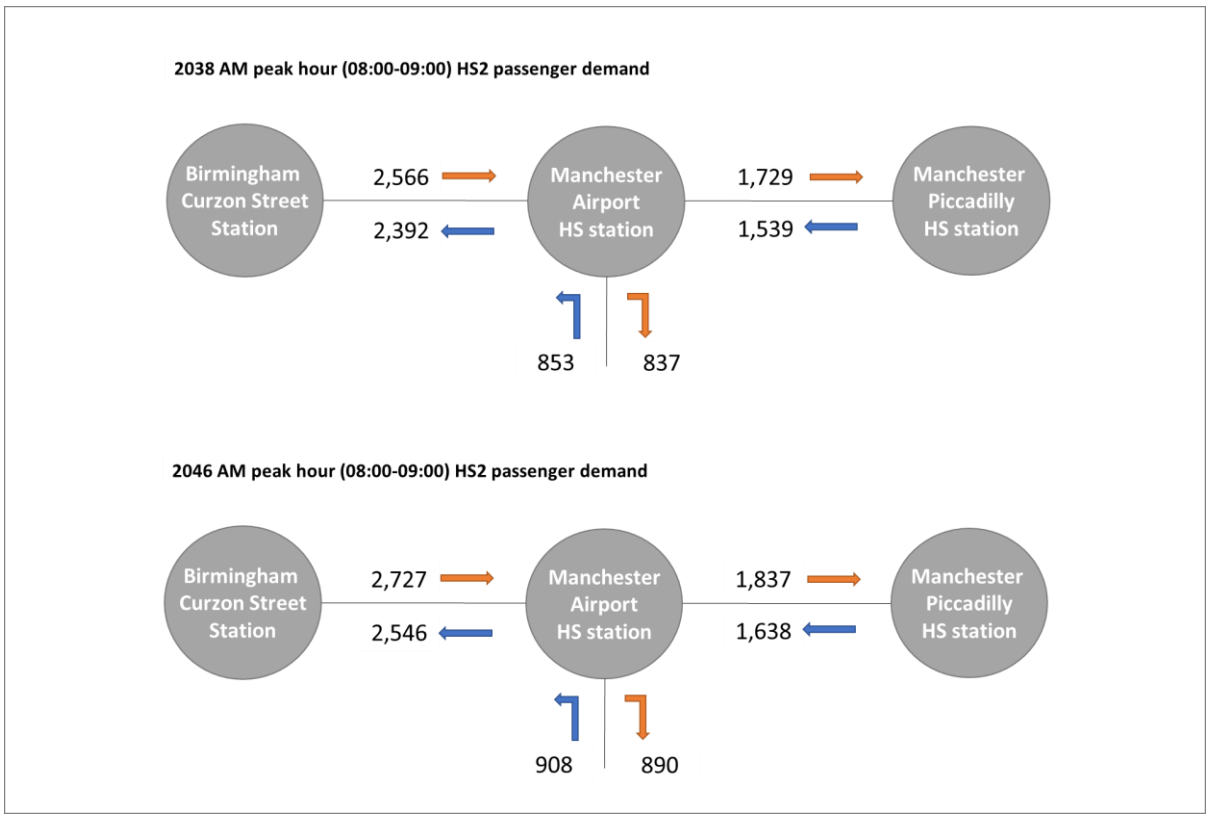
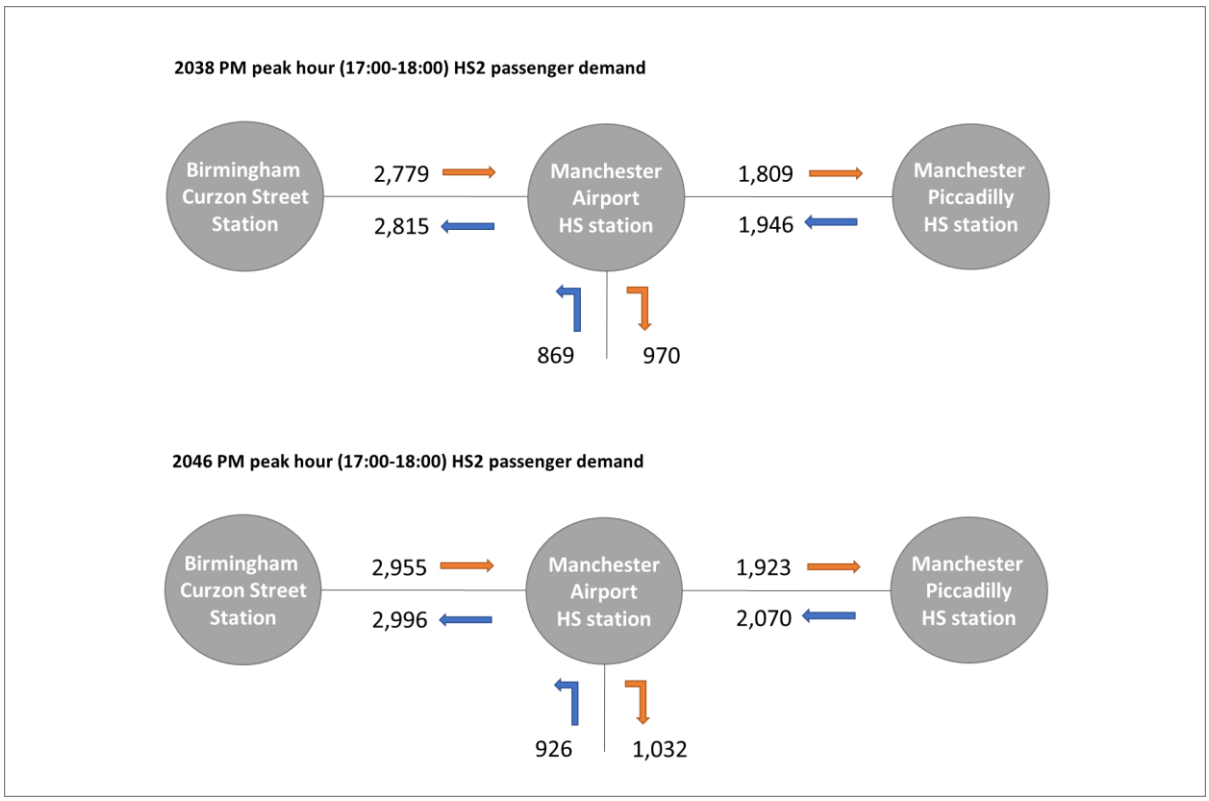


Figure 18-57: PM peak hour (17:00–18:00) HS2 demand at Manchester Piccadilly Station and Manchester Airport HS2 Station



18.5.16 As shown by the figures above, the majority of HS2 passengers arriving at, or departing from, Curzon Street Station across all time periods depart from, or arrive at, Manchester Piccadilly High Speed Station.

Onward mode share and distribution

Mode share

18.5.17 As shown in Table 18-236 and Table 18-237, onward mode share analysis has been undertaken to support assessment of the forecast demand on the transport network. This builds on four key inputs: analysis of the 2018 surveys, model projections for 2038 and 2046, analysis from PFM and stakeholder consultation.

18.5.18 As Manchester Airport High Speed Station is a new station, there is no directly comparable data. Therefore, survey data from Stockport Station were taken as a proxy due to its location in the south of Greater Manchester and being serviced by long-distance services. The mode share from Stockport, specifically in relation to car mode access, were then compared with Birmingham International Station mode share survey analysis, as this was considered to be representative of an interchange station, and to the Manchester Airport group passenger and staff mode shares from 2010 and 2016 to understand the likely travel behaviour associated with the proposed Manchester Airport High Speed Station. As a result, private car (kiss and ride) and taxi mode share data were reduced from the Stockport survey results

while private car (park and ride) increased. The main mode splits between highway/non-highway (public transport, walk, cycle) were retained.

18.5.19 Based on these sources, mode share has been estimated by time of day and for arriving and departing passengers.

Table 18-236: Mode share Manchester Airport High Speed Station, 2038 and 2046

Mode	Mode share* % alighting from trains. AM peak hour (08:00–09:00)	Mode share* % boarding trains. AM peak hour (08:00–09:00)	Mode share* % alighting from trains. PM peak hour (17:00–18:00)	Mode share* % boarding trains. PM peak hour (17:00–18:00)
Bus	17%	5%	5%	17%
Other rail	0%	0%	0%	0%
Metrolink	0%	0%	0%	0%
Walk/cycle[1]	10%	3%	3%	11%
Taxi/private hire	23%	3%	3%	22%
Private car (park and ride)	16%	85%	84%	17%
Private car (kiss and ride)	34%	4%	5%	33%

**Combined total mode share =100%, discrepancies of 1% are due to rounding*

Table 18-237: Mode share Manchester Piccadilly High Speed Station, 2038 and 2046

Mode	Mode share* % alighting from trains. AM peak hour (08:00–09:00)	Mode share* % boarding trains. AM peak hour (08:00–09:00)	Mode share* % alighting from trains. PM peak hour (17:00–18:00)	Mode share* % boarding trains. PM peak hour (17:00–18:00)
Bus	5%	6%	6%	5%
Other rail	22%	31%	31%	22%
Metrolink	12%	18%	18%	12%
Walk/cycle[1]	29%	9%	9%	29%
Taxi/private hire	15%	14%	14%	15%
Private car (park and ride)	1%	12%	12%	1%
Private car (kiss and ride)	15%	10%	10%	15%

**Combined total mode share =100%, discrepancies of 1% are due to rounding*

18.5.20 Table 18-236 indicates that the largest mode share for Manchester Airport High Speed Station passengers boarding in the AM peak hour (08:00–09:00) and alighting in the PM peak hour (17:00–18:00) is private car (park and ride), whilst private car (kiss and ride) is the largest for passengers alighting in the AM peak hour (08:00–09:00) and boarding in the PM

[1] For the calculation of the quantum of cycle parking facilities, a more aspirational mode shore of 4% has been used. This has been informed by discussions with Manchester City Council, who has an aspiration to increase overall cycling mode share from 2.2% to 8.8% by 2040.

peak hour (17:00–18:00). The daily mode share indicates that private car (park and ride) is the largest mode share for both boarding and alighting.

18.5.21 Table 18-237 indicates that the largest mode share for Manchester Piccadilly High Speed Station passengers boarding in the AM peak hour (08:00–09:00) and alighting in the PM peak hour (17:00–18:00) is other rail, whilst walk/cycle is the largest for passengers alighting in the AM peak hour (08:00–09:00) and boarding in the PM peak hour (17:00–18:00). The daily mode share indicates that other rail is the largest mode share for both boarding and alighting.

Distribution

MA06 Manchester Airport High Speed Station highway distribution

18.5.22 The distribution of highway and public transport trips at Manchester Airport High Speed Station has been derived using a gravity model, developed around the principles of the TfGM Airport Connectivity Study Report (ACSR). The gravity model derived distributions are presented in Table 18-238 and illustrated in Figure 18-58 and Figure 18-59 for the AM peak hour (08:00–09:00) access/egress, and Figure 18-60 and Figure 18-61 for the PM peak hour (17:00–18:00) access/egress, respectively.

18.5.23 In terms of the distribution, the highest percentage of highway trips accessing and egressing Manchester Airport High Speed Station is from the outer southwest, with 31% accessing the station and 31% egressing the station in the AM peak hour (08:00–09:00), and 30% accessing the station and 31% egressing the station in the PM peak hour (17:00–18:00). The next highest percentage distribution of highway trips is from Stockport and Manchester. The highway distribution for Stockport is 20% accessing the station and 22% egressing the station in the AM peak hour (08:00–09:00), and 24% accessing the station and 21% egressing the station in the PM peak hour (17:00–18:00). The highway distribution for Manchester is 20% accessing the station and 19% egressing the station in the AM peak hour (08:00–09:00), and 18% accessing the station and 19% egressing the station in the PM peak hour (17:00–18:00).

18.5.24 The public transport distribution has been derived directly from the long-distance rail surveys at Stockport Station and supplemented with detail from the Greater Manchester Public Transport Model (GMPTM). The derived distributions are presented in Table 18-239 and illustrated in Figure 18-62 and Figure 18-63 for the AM peak hour (08:00–09:00) access/egress and Figure 18-64 and Figure 18-65 for the PM peak hour (17:00–18:00) access/egress, respectively.

18.5.25 In terms of the distribution, the highest percentage of public transport trips accessing Manchester Airport High Speed Station is from Manchester, with 61% accessing the station and 48% egressing the station in the AM peak hour (08:00–09:00), and 42% accessing the station and 53% egressing the station in the PM peak hour (17:00–18:00). The next highest percentage distribution of public transport trips is from Trafford with 18% accessing the

station and 24% egressing the station in the AM peak hour (08:00–09:00), and 27% accessing the station and 21% egressing the station in the PM peak hour (17:00–18:00).

Table 18-238: Highway distribution, Manchester Airport High Speed Station, 2038 and 2046

Locations	AM Peak Hour (08:00–09:00)	AM Peak Hour (08:00–09:00) egress highway distribution %	PM Peak Hour (17:00–18:00) access highway distribution %	PM Peak Hour (17:00–18:00) egress highway distribution %
Manchester	20%	19%	18%	19%
Bolton	0%	0%	0%	0%
Bury	0%	0%	0%	0%
Rochdale	0%	0%	0%	0%
Oldham	0%	0%	0%	0%
Tameside	0%	0%	0%	0%
Stockport	20%	22%	24%	21%
Trafford	15%	14%	14%	15%
Salford	0%	0%	0%	1%
Wigan	0%	0%	0%	0%
Outer NE	0%	0%	0%	0%
Outer SE	15%	14%	14%	14%
Outer SW	31%	31%	30%	31%
Outer NW	0%	0%	0%	0%
Total	100%	100%	100%	100%

Table 18-239: Public transport distribution, Manchester Airport High Speed Station, 2038 and 2046

Locations	AM Peak Hour (08:00–09:00) access highway distribution %	AM Peak Hour (08:00–09:00) egress highway distribution %	PM Peak Hour (17:00–18:00) access highway distribution %	PM Peak Hour (17:00–18:00) egress highway distribution %
Manchester	61%	48%	42%	53%
Bolton	0%	0%	0%	0%
Bury	0%	0%	0%	0%
Rochdale	0%	0%	0%	0%
Oldham	0%	0%	0%	0%
Tameside	0%	0%	0%	0%
Stockport	2%	2%	11%	13%
Trafford	18%	24%	27%	21%
Salford	0%	0%	1%	1%
Wigan	0%	0%	0%	0%
Outer NE	0%	0%	0%	0%
Outer SE	15%	22%	15%	11%
Outer SW	3%	4%	4%	2%
Outer NW	0%	0%	0%	0%
Total	100%	100%	100%	100%

Figure 18-58: Manchester Airport High Speed Station highway distribution - AM peak hour (08:00–09:00) access

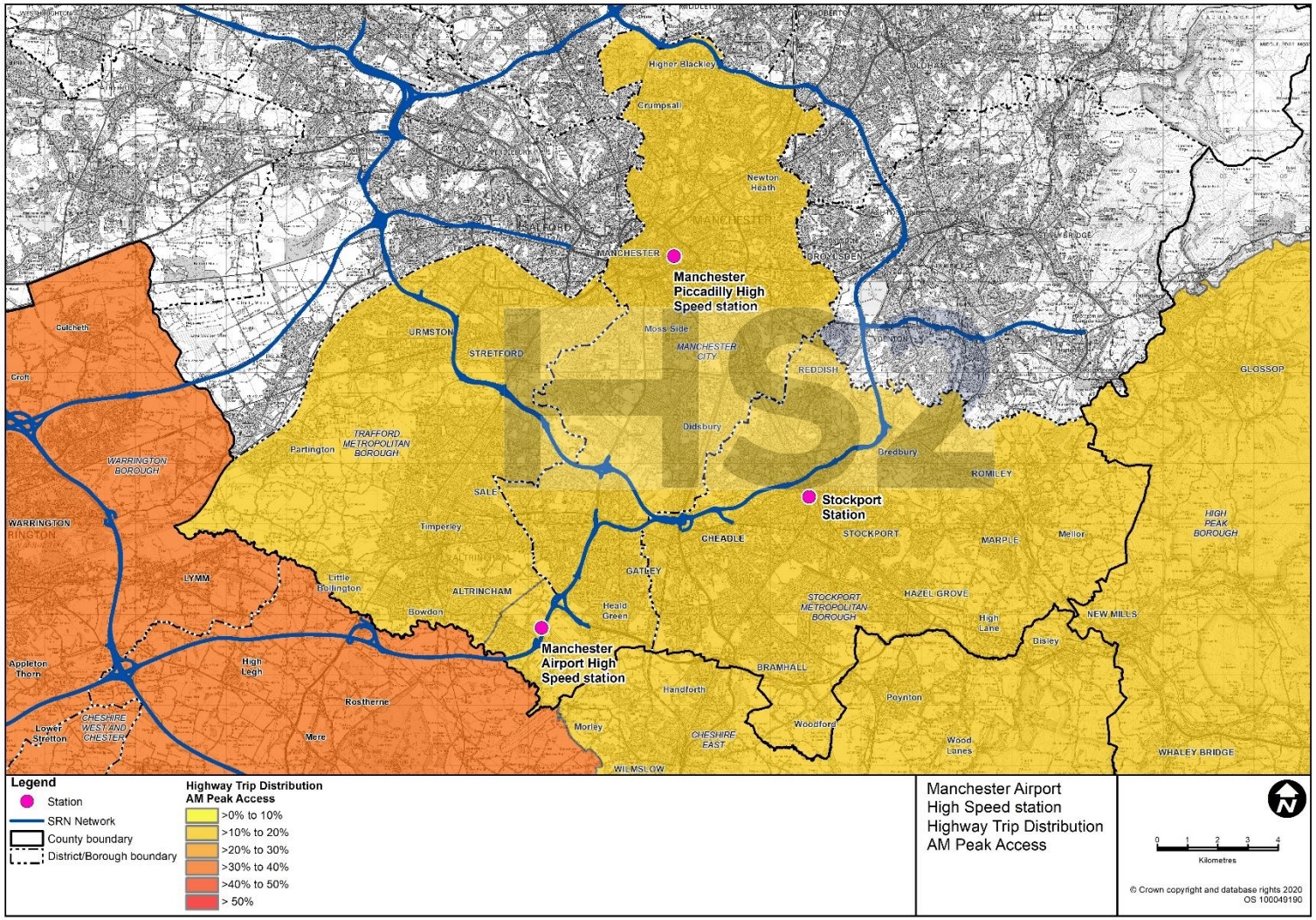


Figure 18-59: Manchester Airport High Speed Station highway distribution - AM peak hour (08:00–09:00) egress

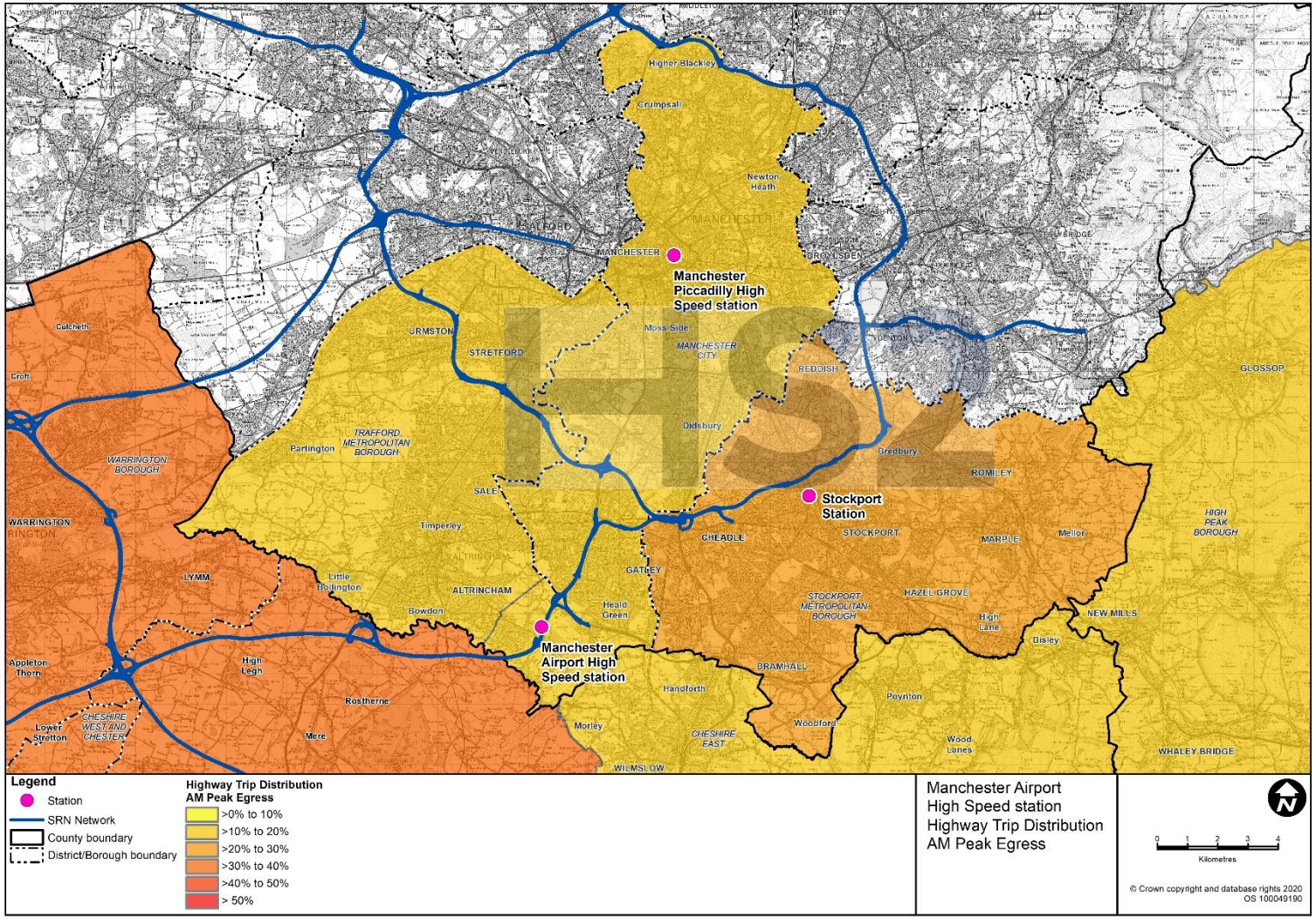


Figure 18-60: Manchester Airport High Speed Station highway distribution - PM peak hour (17:00–18:00) access

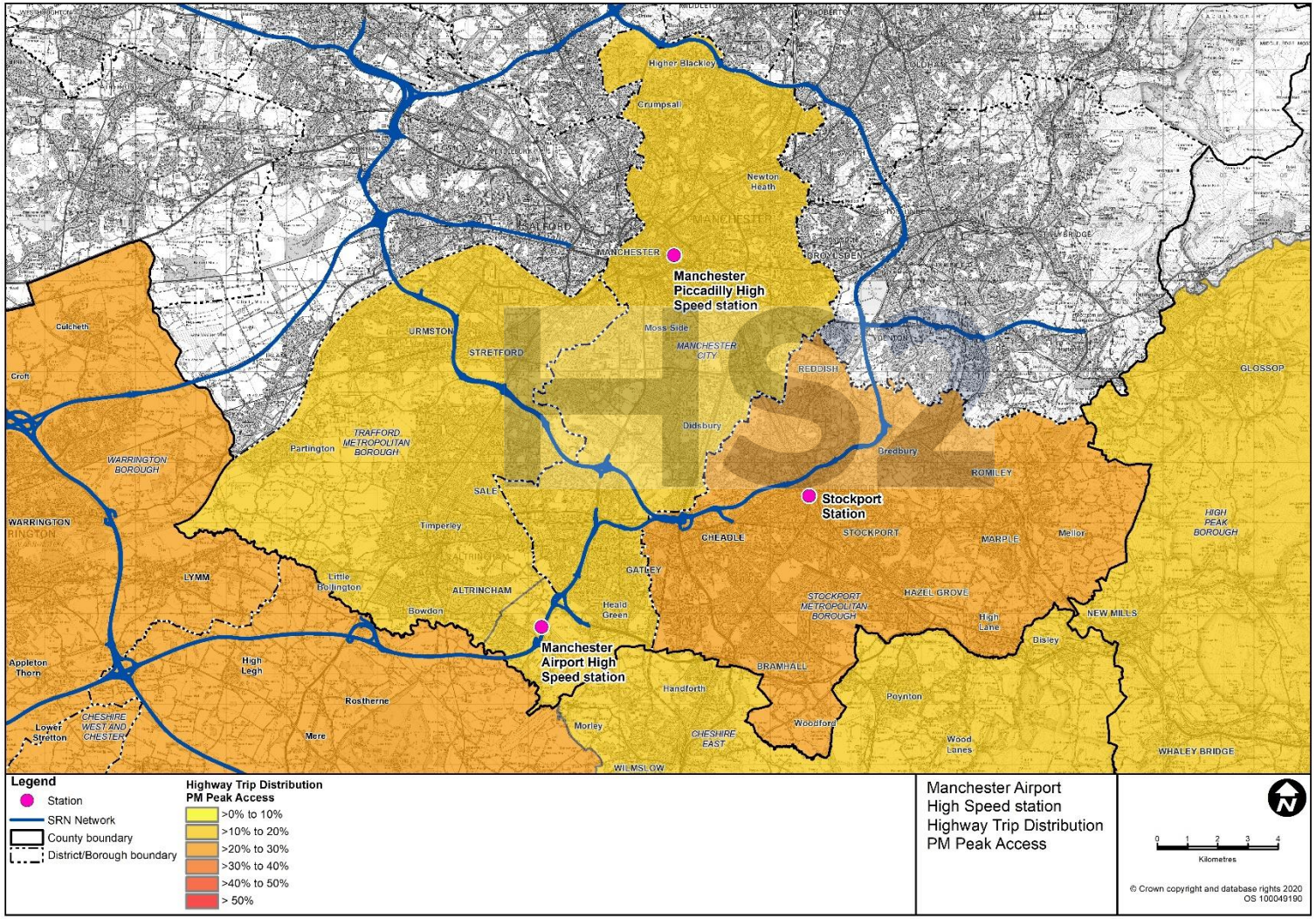


Figure 18-61: Manchester Airport High Speed Station highway distribution - PM peak hour (17:00–18:00) egress

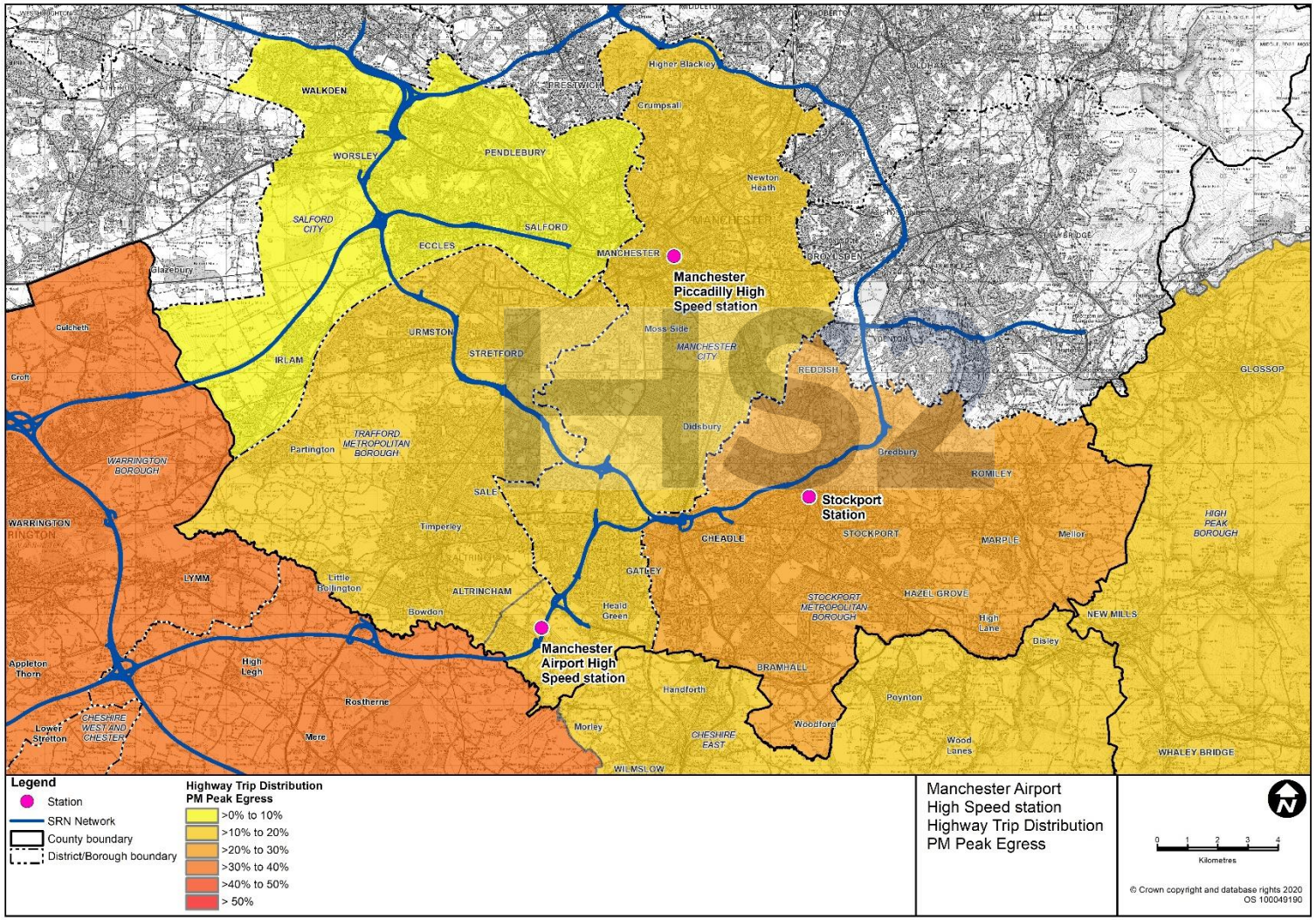


Figure 18-62: Manchester Airport High Speed Station public transport distribution - AM peak hour (08:00–09:00) access

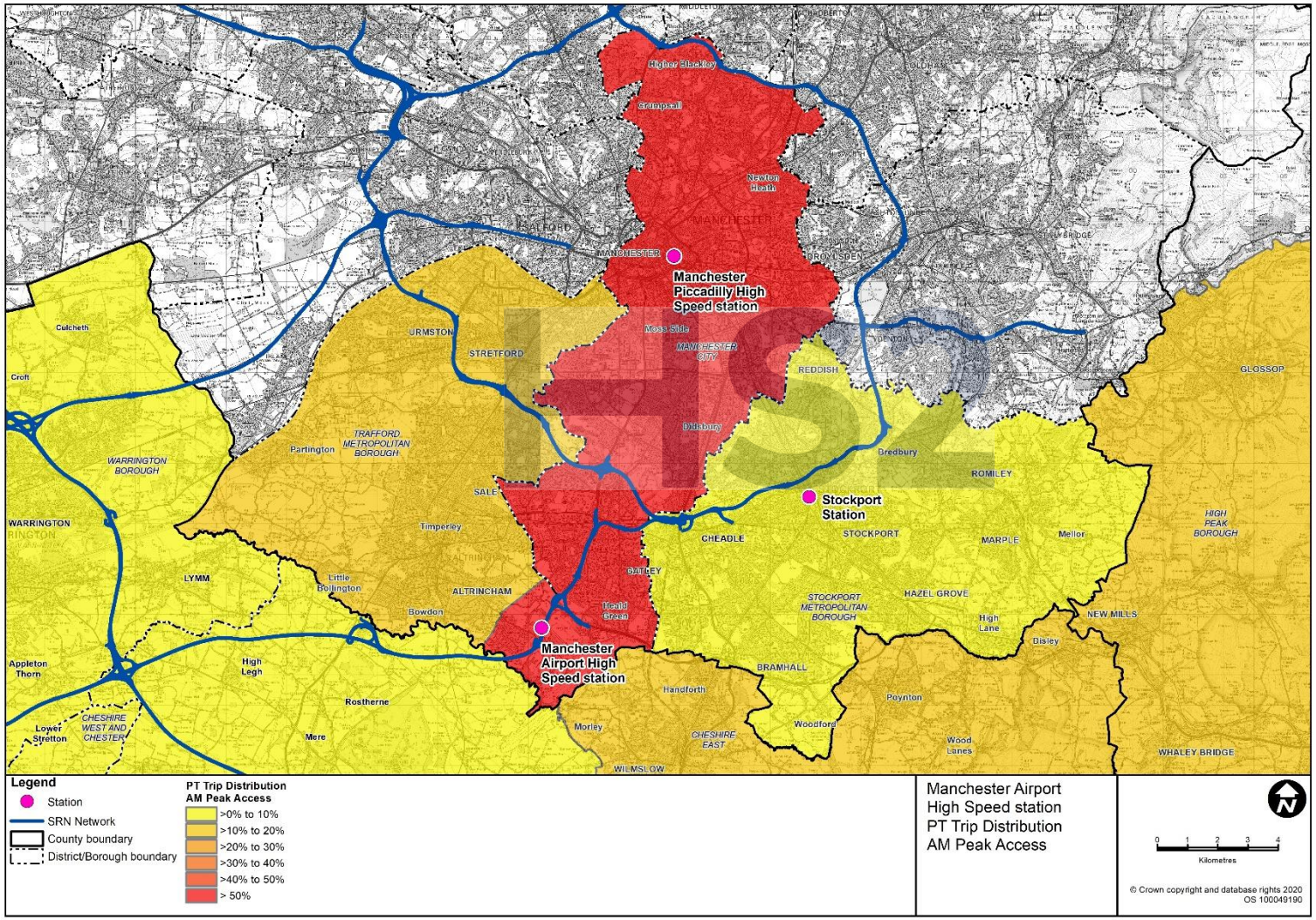


Figure 18-63: Manchester Airport High Speed Station public transport distribution - AM peak hour (08:00–09:00) egress

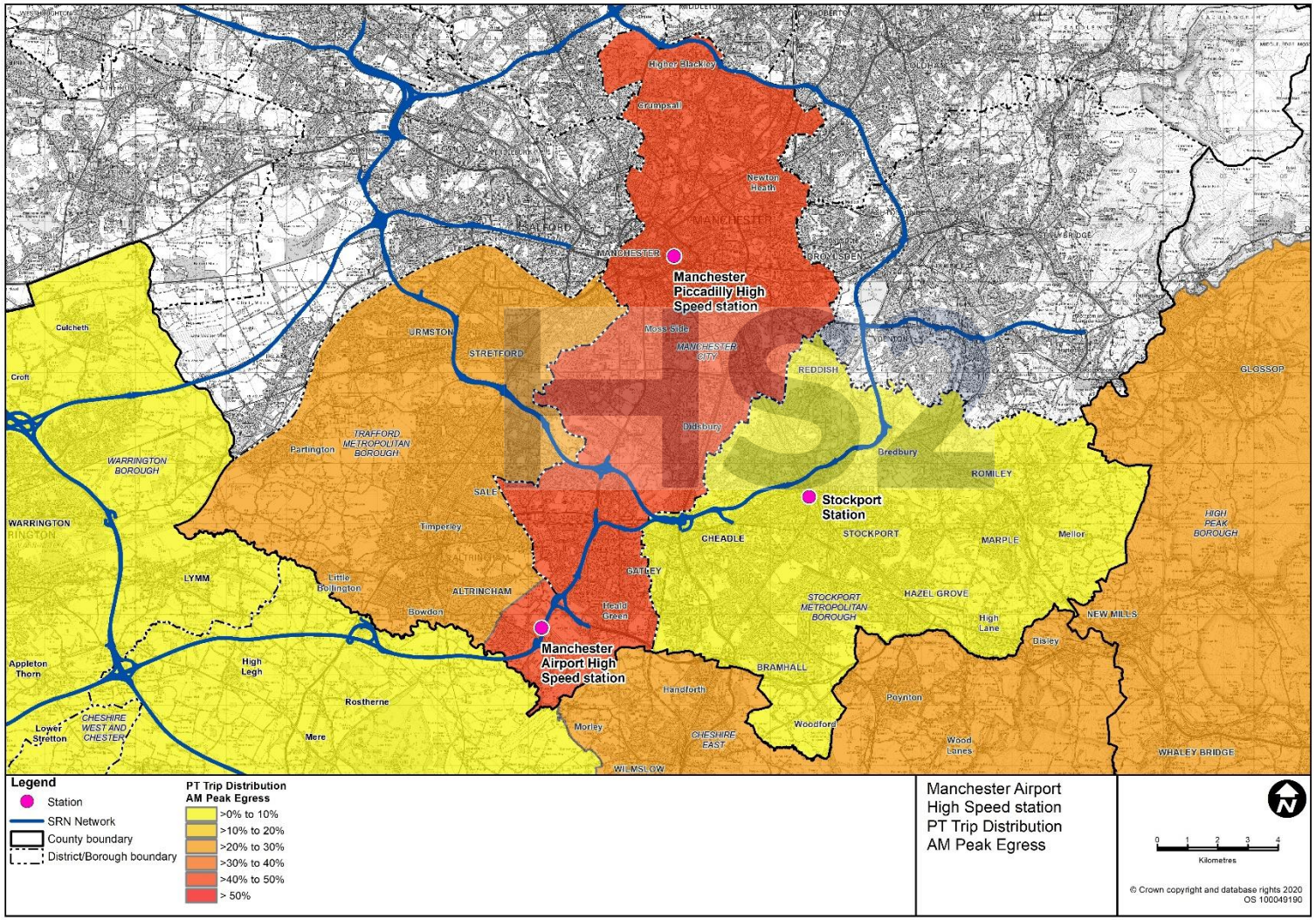


Figure 18-64: Manchester Airport High Speed Station public transport distribution - PM peak hour (17:00–18:00) access

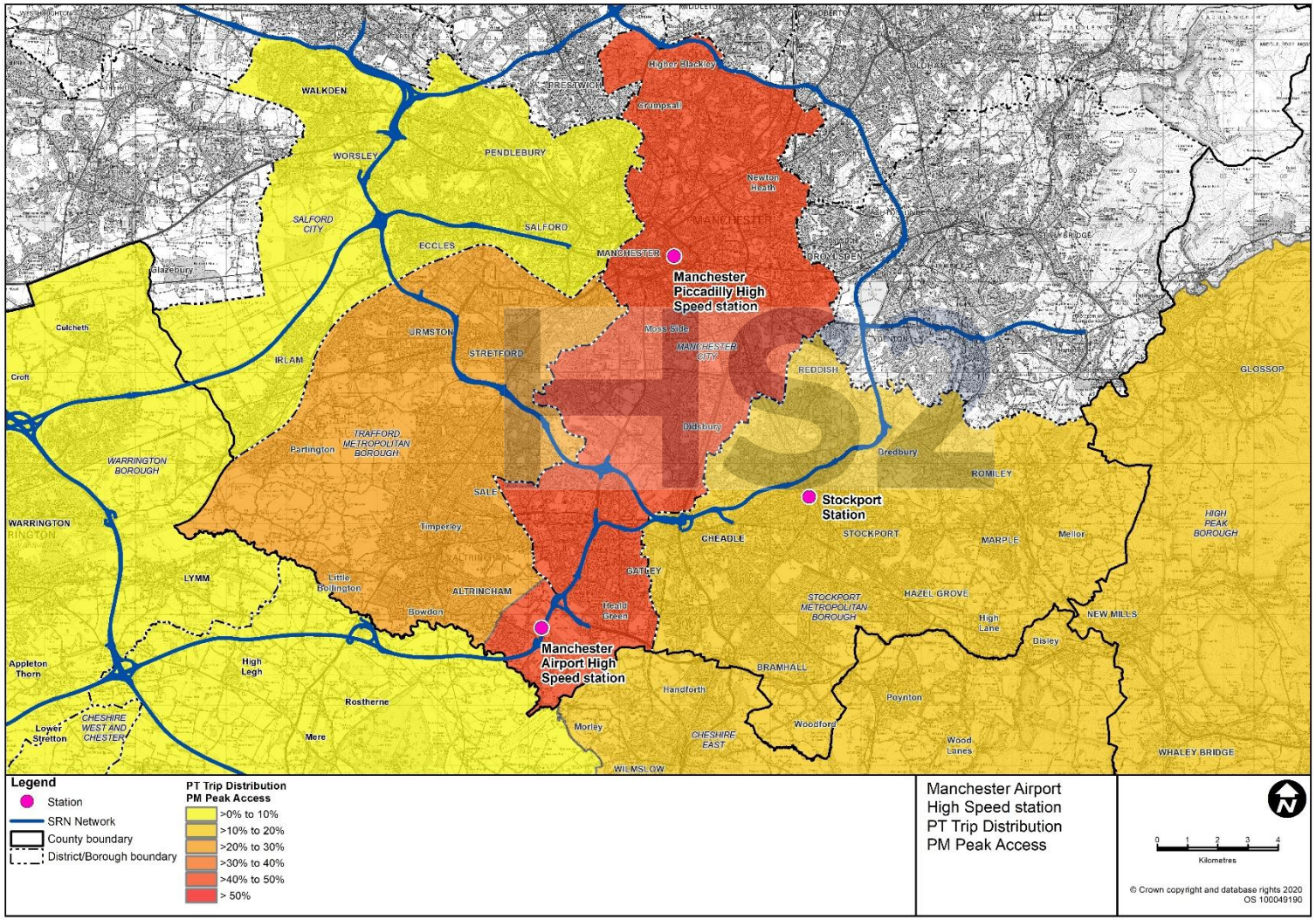
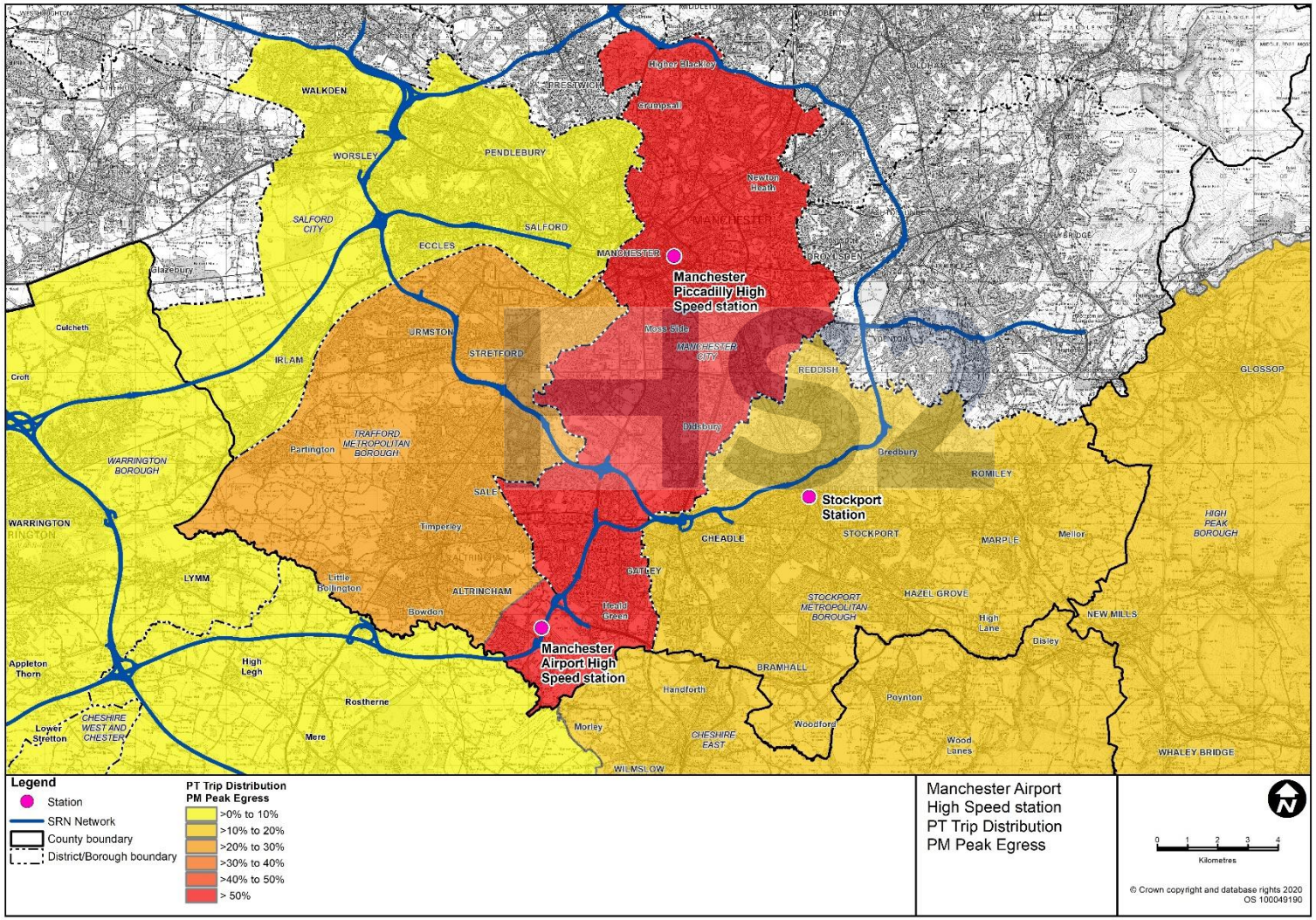


Figure 18-65: Manchester Airport High Speed Station public transport distribution - PM peak hour (17:00–18:00) egress



MA08 Manchester Piccadilly High Speed Station highway distribution

18.5.26 The distribution of highway and public transport trips at Manchester Piccadilly High Speed Station has been split into highway trips and public transport trips.

18.5.27 The highway distribution has been derived directly from the long-distance rail surveys at the existing Manchester Piccadilly Station and supplemented with detail from the Greater Manchester SATURN Model (GMSM). The derived distributions are presented in Table 18-240 and illustrated in Figure 18-66 and Figure 18-67 for the AM peak hour (08:00–09:00) access/egress, and Figure 18-68 and Figure 18-69 for the PM peak hour (17:00–18:00) access/egress, respectively.

18.5.28 The highest distribution of highway trips accessing and egressing Manchester Piccadilly High Speed Station is from within the Manchester City district, with 28% accessing the station and 79% egressing the station in the AM peak hour (08:00–09:00), and 79% accessing the station and 28% egressing the station in the PM peak hour (17:00–18:00). The next highest distribution of highway trips is from Salford and Stockport. The highway distribution for Salford is 13% accessing the station and 19% egressing the station in the AM peak hour (08:00–09:00), and 19% accessing the station and 13% egressing the station in the PM peak hour (17:00–18:00). The highway distribution for Stockport represents one-way trips into Manchester in the AM peak hour (08:00–09:00) (22% accessing the station, 0% egressing the station) and then out of Manchester in the PM peak hour (17:00–18:00) (0% accessing the station, 22% egressing the station).

18.5.29 The public transport distribution has been derived directly from the long-distance rail surveys at the existing Manchester Piccadilly Station and supplemented with detail from the GMPTM. The derived distributions are presented in Table 18-241 and Table 18-240 and illustrated in Figure 18-70 and Figure 18-71 for the AM peak hour (08:00–09:00) access/egress, and Figure 18-72 and Figure 18-73 for the PM peak hour (17:00–18:00) access/egress, respectively.

18.5.30 The highest distribution of public transport trips accessing Manchester Piccadilly High Speed Station is from Manchester, with 33% accessing the station and 70% egressing the station in the AM peak hour (08:00–09:00), and 64% accessing the station and 33% egressing the station in the PM peak hour (17:00–18:00). The next highest distribution of public transport trips is from Salford with 12% accessing the station and 18% egressing the station in the AM peak hour (08:00–09:00), and 16% accessing the station and 11% egressing the station in the PM peak hour (17:00–18:00).

Table 18-240: Highway distribution, Manchester Piccadilly High Speed Station, 2038 and 2046

Locations	AM Peak Hour (08:00–09:00) access highway distribution %	AM Peak Hour (08:00–09:00) egress highway distribution %	PM Peak Hour (17:00–18:00) access highway distribution %	PM Peak Hour (17:00–18:00) egress highway distribution %
Manchester	28%	79%	79%	28%
Bolton	2%	0%	0%	2%

Locations	AM Peak Hour (08:00–09:00) access highway distribution %	AM Peak Hour (08:00–09:00) egress highway distribution %	PM Peak Hour (17:00–18:00) access highway distribution %	PM Peak Hour (17:00–18:00) egress highway distribution %
Bury	8%	0%	0%	8%
Rochdale	4%	0%	0%	4%
Oldham	4%	0%	0%	4%
Tameside	11%	0%	0%	11%
Stockport	22%	0%	0%	22%
Trafford	5%	2%	2%	5%
Salford	13%	19%	19%	13%
Wigan	1%	0%	0%	1%
Outer NE	0%	0%	0%	0%
Outer SE	1%	0%	0%	1%
Outer SW	0%	0%	0%	0%
Outer NW	2%	0%	0%	2%
Total	100%	100%	100%	100%

Table 18-241: Public transport distribution, Manchester Piccadilly High Speed Station, 2038 and 2046

Locations	AM Peak Hour (08:00–09:00) access public transport distribution %	AM Peak Hour (08:00–09:00) egress public transport distribution %	PM Peak Hour (17:00–18:00) access public transport distribution %	PM Peak Hour (17:00–18:00) Egress public transport distribution %
Manchester	33%	70%	64%	33%
Bolton	8%	1%	11%	8%
Bury	12%	0%	0%	12%
Rochdale	3%	0%	0%	3%
Oldham	9%	2%	2%	9%
Tameside	11%	2%	2%	11%
Stockport	3%	2%	2%	3%
Trafford	4%	5%	3%	2%
Salford	12%	18%	16%	11%
Wigan	3%	0%	0%	3%
Outer NE	0%	0%	0%	0%
Outer SE	4%	0%	0%	5%
Outer SW	0%	0%	0%	0%
Outer NW	0%	0%	0%	0%
Total	100%	100%	100%	100%

Figure 18-66: Manchester Piccadilly High Speed Station highway distribution - AM peak hour (08:00–09:00) access

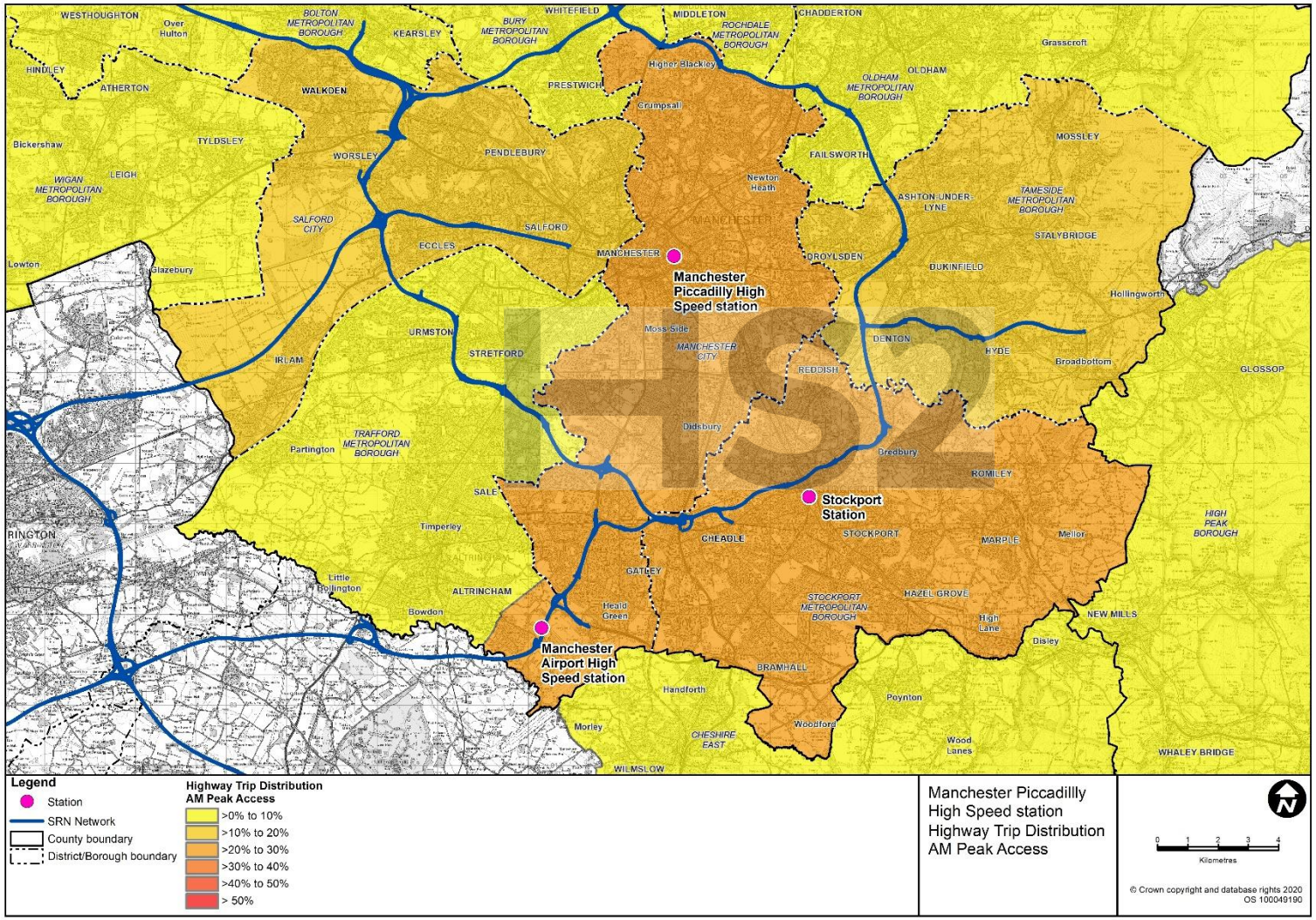


Figure 18-67: Manchester Piccadilly High Speed Station highway distribution - AM peak hour (08:00–09:00) egress

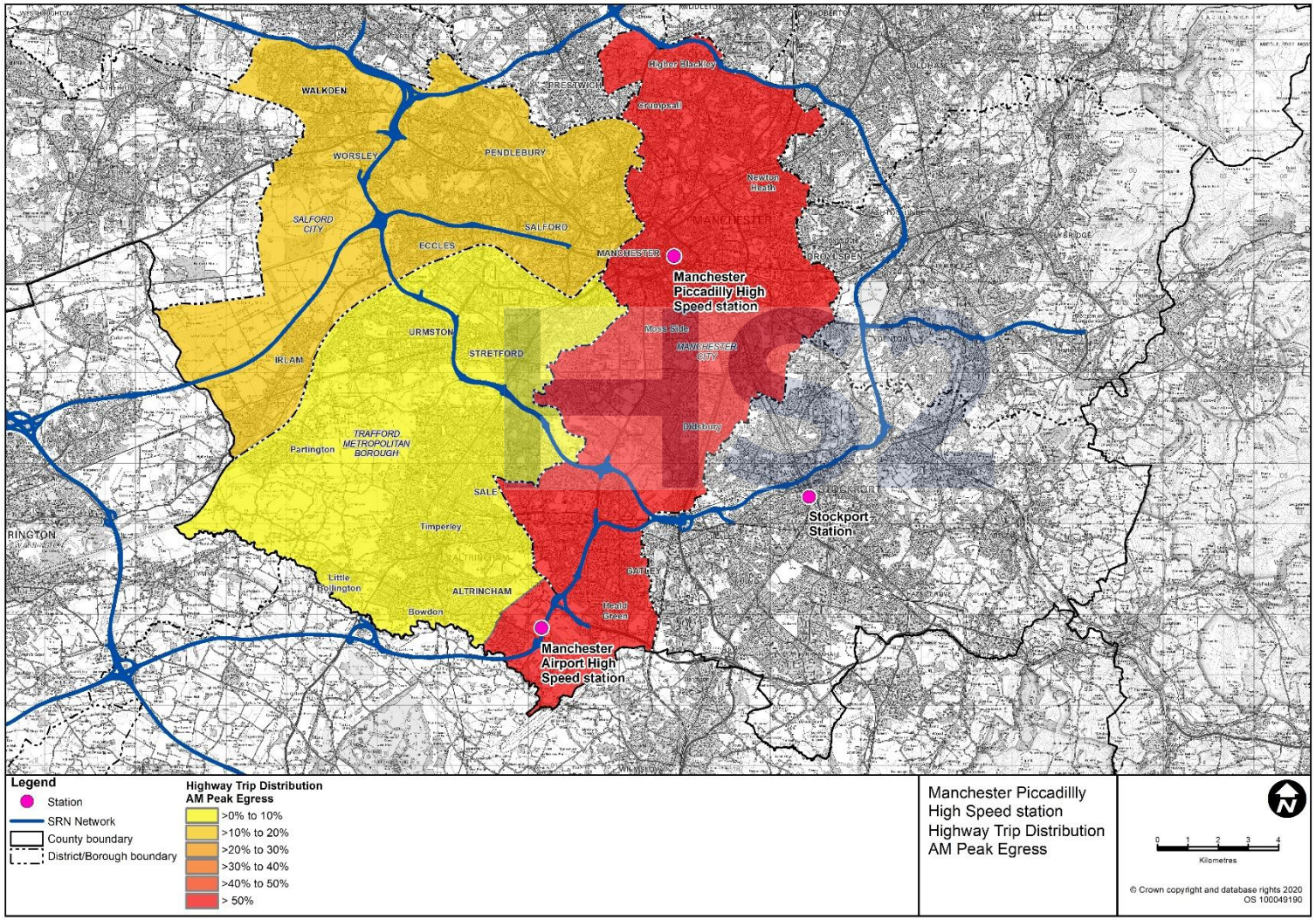


Figure 18-68: Manchester Piccadilly High Speed Station highway distribution - PM peak hour (17:00–18:00) access

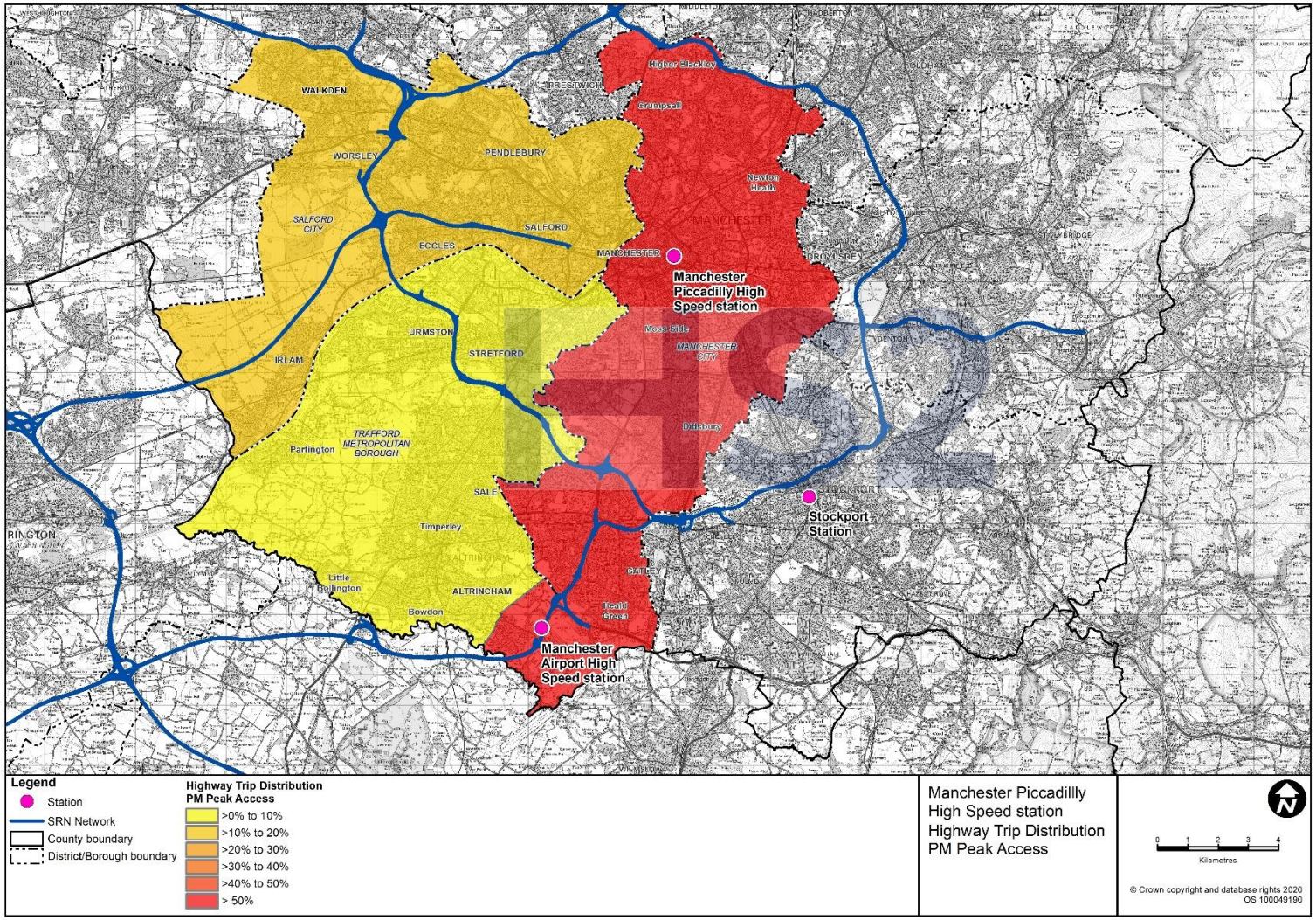


Figure 18-69: Manchester Piccadilly High Speed Station highway distribution - PM peak hour (17:00–18:00) egress

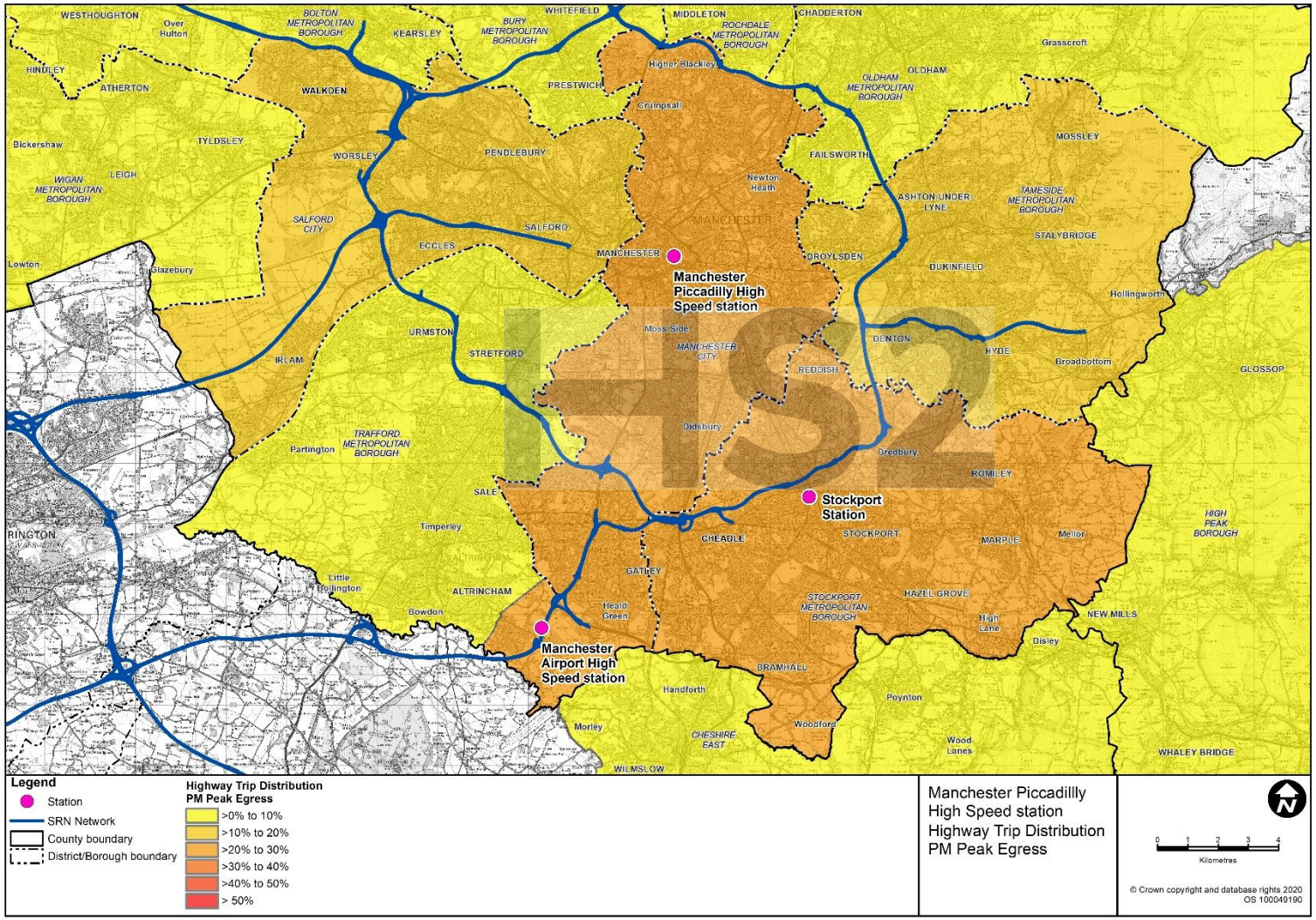


Figure 18-70: Manchester Piccadilly High Speed Station public transport distribution - AM peak hour (08:00–09:00) access

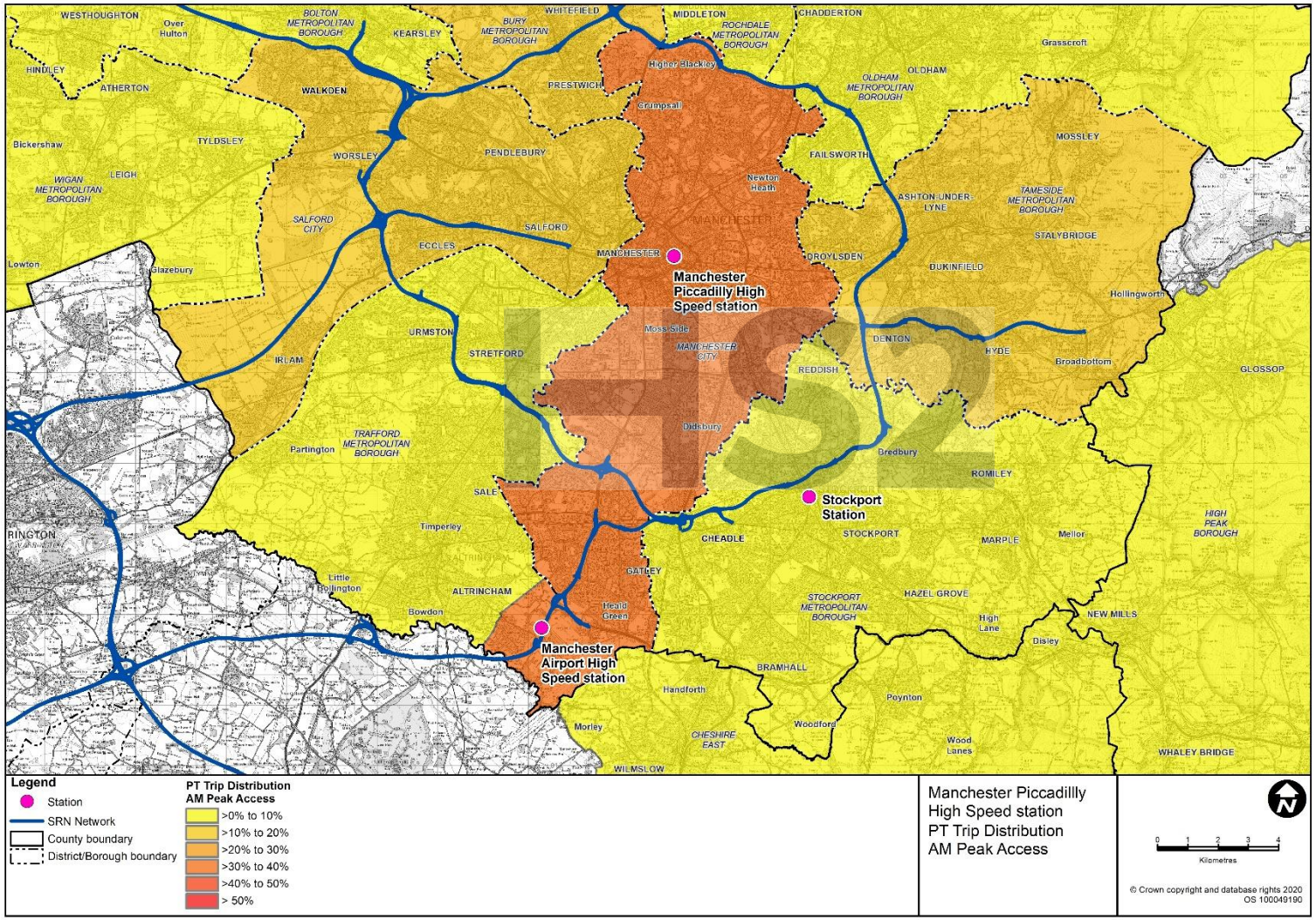


Figure 18-71: Manchester Piccadilly High Speed Station public transport distribution - AM peak hour (08:00–09:00) egress

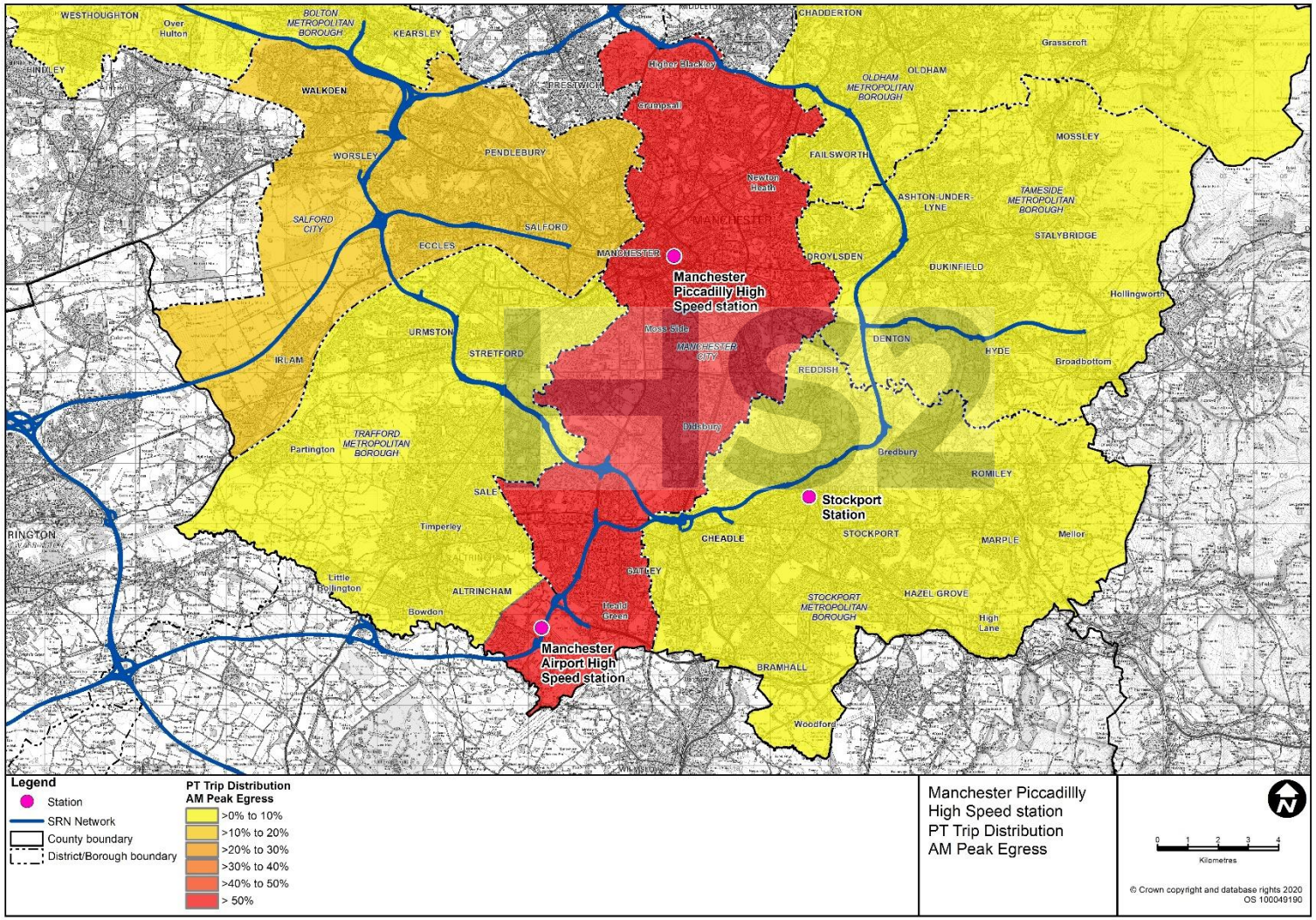


Figure 18-72: Manchester Piccadilly High Speed Station public transport distribution - PM peak hour (17:00–18:00) access

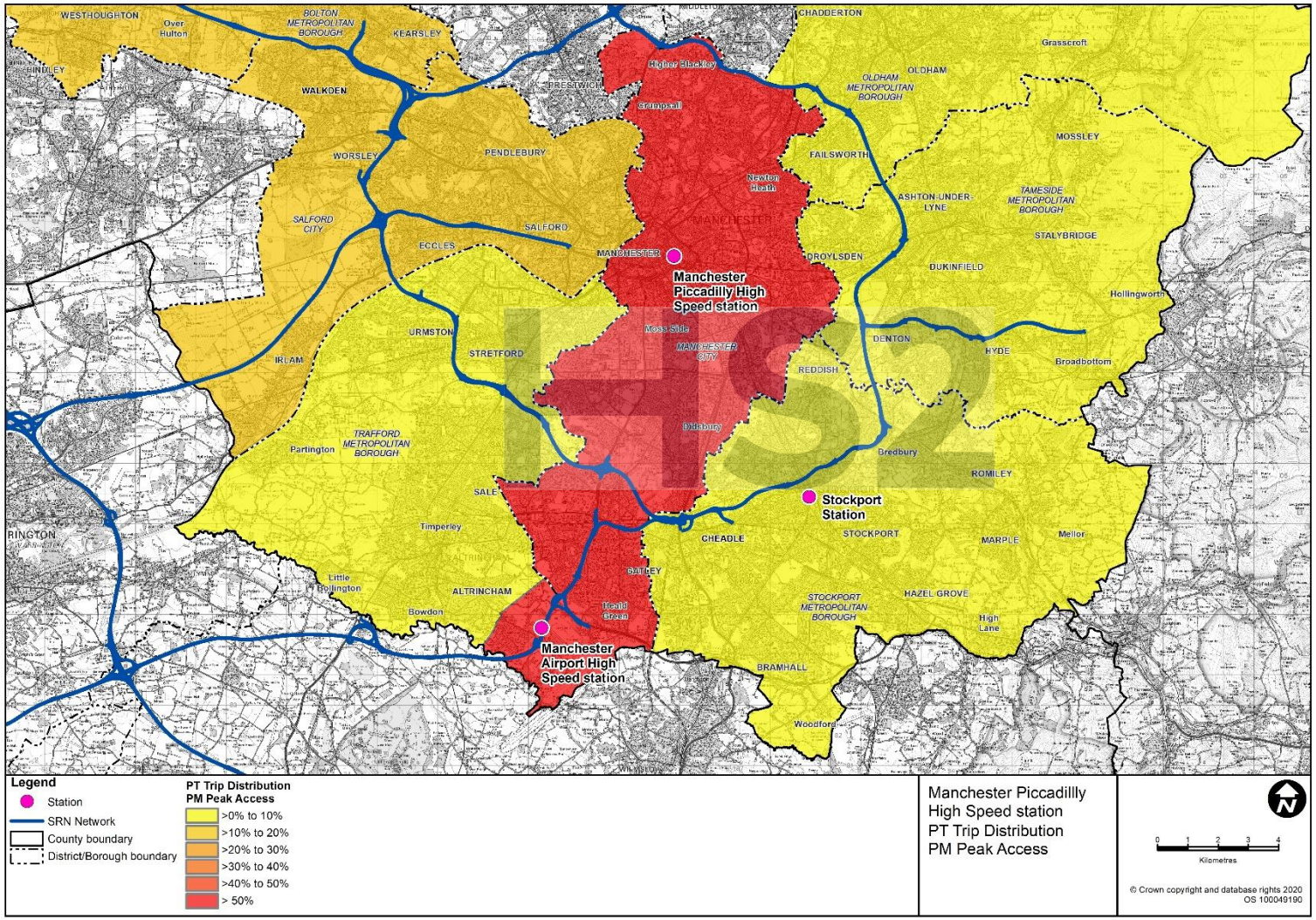
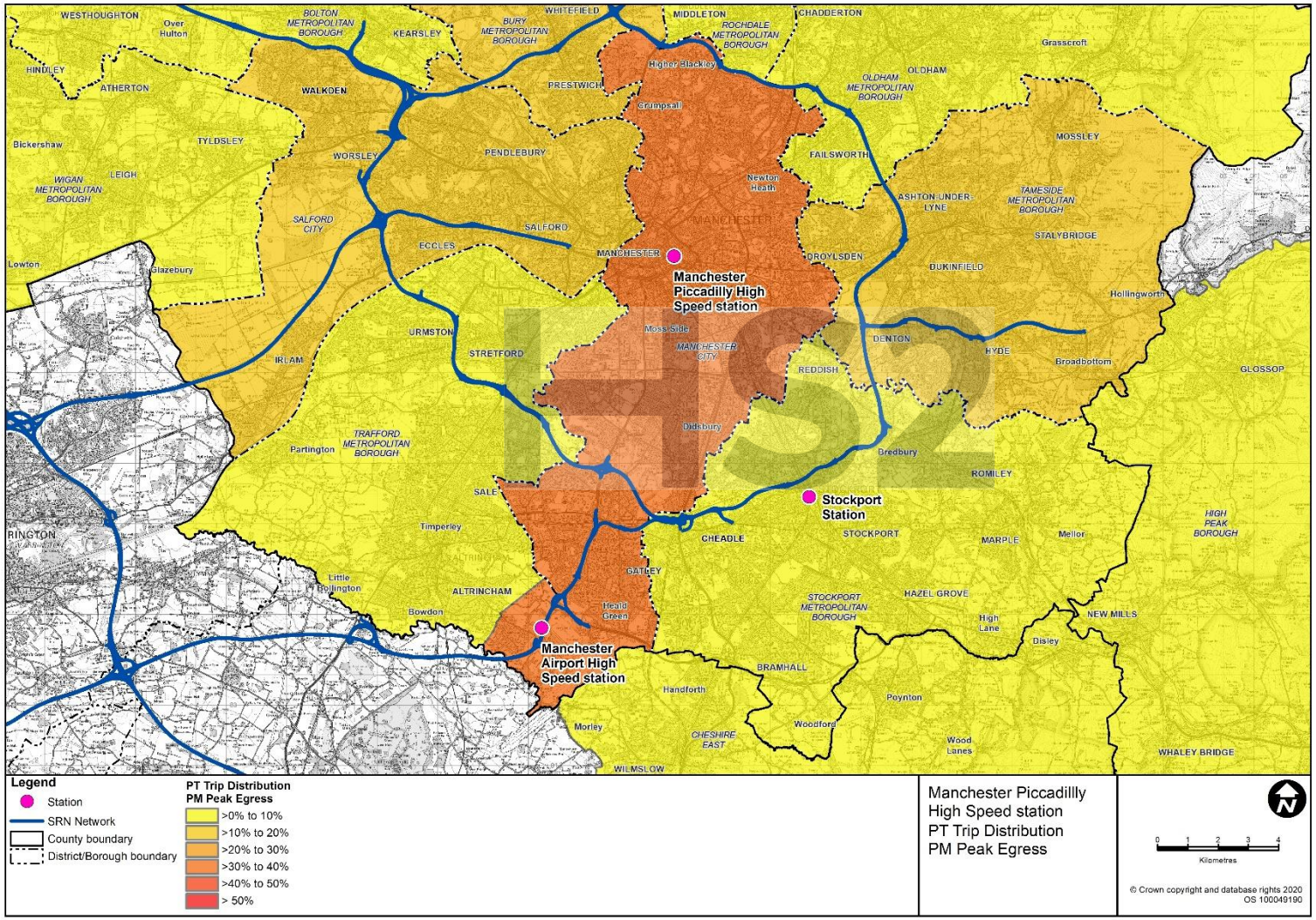


Figure 18-73: Manchester Piccadilly High Speed Station public transport distribution - PM peak hour (17:00–18:00) egress



Local bus routes

MA06

18.5.31 Local bus routes in the MA06 area will be affected where they are crossed by the route of the Proposed Scheme or where the Proposed Scheme results in changes to the route of the bus service.

18.5.32 There will be impacts on bus journey times associated with the realignment of a section of the A538 Hale Road, 285m north-east of its current alignment for 725m, the introduction of the new A538 Hale Road/Station access gyratory and increases in traffic associated with the Proposed Scheme. The impact of these changes on bus journey times has been assessed using the GMSM, which includes journey times for peak hour bus services. Table 18-242 and Table 18-243 set out the changes to the bus journey times for these services in 2038 and 2046, respectively.

18.5.33 The routes with the greatest proportional increase in journey times in the 2038 AM peak hour (08:00–09:00) are:

- bus routes 88, 283, 741 and 869 operating on the A538 Hale Road/Wilmslow Road between Delahays Road and Mill Lane - 26% increase in journey time in the eastbound direction; and
- bus routes 103, 288 and 313 operating on the A538 Hale Road/Wilmslow Road and Runger Lane between Delahays Road and Manchester Airport - 27% increase in journey time in the eastbound direction.

18.5.34 Bus routes 103, 288 and 313 operating on the A538 Hale Road/Wilmslow Road and Runger Lane between Delahays Road and Manchester Airport are the routes with the greatest proportional increase in journey times in the 2038 PM peak hour (17:00–18:00). Bus journey times on these routes will increase by 25% in the eastbound direction.

18.5.35 The routes with the greatest proportional increase in journey times in the 2046 AM peak hour (08:00–09:00) are:

- bus routes 88, 283, 741 and 869 operating on the A538 Hale Road/Wilmslow Road between Delahays Road and Mill Lane - 20% increase in journey time in the westbound direction; and
- bus routes 103, 288 and 313 operating on the A538 Hale Road/Wilmslow Road and Runger Lane between Delahays Road and Manchester Airport - 47% increase in journey time in the eastbound direction.

18.5.36 Bus routes 103, 288 and 313 operating on the A538 Hale Road/Wilmslow Road and Runger Lane between Delahays Road and Manchester Airport are the routes with the greatest proportional increase in journey times in the 2046 PM peak hour (17:00–18:00). Bus journey times on these routes will increase by 22% in the eastbound direction.

Table 18-242: Changes in bus journey times with Proposed Scheme in MA06, 2038

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		AM peak Hour (08:00–09:00)				PM peak Hour (17:00–18:00)			
		2038 baseline	2038 Proposed Scheme			2038 baseline	2038 Proposed Scheme		
88, 283, 741, 869	Mill Lane to Delahays Road via A538 Wilmslow Road and A538 Hale Road (westbound)	12:50	15:30	02:40	21%	12:20	12:50	00:30	4%
	Delahays Road to Mill Lane via A538 Hale Road and A538 Wilmslow Road (eastbound)	14:10	10:30	03:40	26%	10:10	08:50	01:20	13%
103, 288, 313	Manchester Airport to Delahays Road via Runger Lane and A538 Hale Road (westbound)	09:10	09:30	00:20	4%	08:50	09:10	00:20	4%
	Delahays Road to Manchester Airport via A538 Hale Road and Runger Lane (eastbound)	08:40	11:00	02:20	27%	07:20	09:10	01:50	25%

Table 18-243: Changes in bus journey times with Proposed Scheme in MA06, 2046

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		AM peak Hour (08:00–09:00)				PM peak Hour (17:00–18:00)			
		2046 baseline	2046 Proposed Scheme			2046 baseline	2046 Proposed Scheme		
88, 283, 741, 869	Mill Lane to Delahays Road via A538 Wilmslow Road and A538 Hale Road (westbound)	14:40	17:40	03:00	20%	12:30	13:10	00:40	5%
	Delahays Road to Mill Lane via A538 Hale Road and A538 Wilmslow Road (eastbound)	14:20	12:20	02:00	14%	10:20	08:30	01:50	18%
103, 288, 313	Manchester Airport to Delahays Road via Runger Lane and A538 Hale Road (westbound)	09:50	10:00	00:10	2%	09:10	10:50	01:40	18%
	Delahays Road to Manchester Airport via A538 Hale Road and Runger Lane (eastbound)	10:00	14:40	04:40	47%	07:30	09:10	01:40	22%

MA07 and MA08

18.5.37 Local bus routes in the MA07 and MA08 area will be affected where they are crossed by the route of the Proposed Scheme or where the Proposed Scheme results in changes to the route of the bus service.

18.5.38 There will be impacts on bus journey times associated with the remodelling of the road network around the Manchester Piccadilly High Speed Station, the introduction of the new A635/A665 Pin Mill Brow gyratory and increases in traffic associated with the Proposed Scheme. The impact of these changes on bus journey times has been assessed using the GMSM, which includes journey times for peak hour bus services. Table 18-244 and Table 18-245 set out the changes to the bus journey times for these services in 2038 and 2046, respectively.

18.5.39 The routes with the greatest proportional increase in journey times in the 2038 AM peak hour (08:00–09:00) are:

- bus routes 7, 7A, 7B, 171, 172, 219, 220, 221, 703, 704, 707, 719, 747 and 768 operating on the A635 Ashton Old Road between the A6010 Alan Turing Way and Manchester City Centre – 31% increase in journey time in the westbound direction;
- bus routes 192, 733 and X92 operating on the A6 Stockport Road between the A6010 Alan Turing Way and Manchester City Centre - 42% increase in journey time in the southbound direction; and
- bus routes 201, 202, 203 and 205 operating on the A57 Hyde Road between the A6010 Alan Turing Way and Manchester City Centre - 40% increase in journey time in the eastbound direction.

18.5.40 The routes with the greatest proportional increase in journey times in the 2038 PM peak hour (17:00–18:00) are:

- bus routes 7, 7A, 7B, 171, 172, 219, 220, 221, 703, 704, 707, 719, 747 and 768 operating on the A635 Ashton Old Road between the A6010 Alan Turing Way and Manchester City Centre – 11% increase in journey time in the westbound direction;
- bus routes 192, 733 and X92 operating on the A6 Stockport Road between the A6010 Alan Turing Way and Manchester City Centre - 17% increase in journey time in the southbound direction; and
- bus routes 201, 202, 203 and 205 operating on the A57 Hyde Road between the A6010 Alan Turing Way and Manchester City Centre - 17% increase in journey time in the eastbound direction.

18.5.41 The routes with the greatest proportional increase in journey times in the 2046 AM peak hour (08:00–09:00) are:

- bus routes 7, 7A, 7B, 171, 172, 219, 220, 221, 703, 704, 707, 719, 747 and 768 operating on the A635 Ashton Old Road between the A6010 Alan Turing Way and Manchester City Centre - 31% increase in journey time in the westbound direction;

- bus routes 192, 733 and X92 operating on the A6 Stockport Road between the A6010 Alan Turing Way and Manchester City Centre - 52% increase in journey time in the southbound direction; and
- bus routes 201, 202, 203 and 205 operating on the A57 Hyde Road between the A6010 Alan Turing Way and Manchester City Centre - 52% increase in journey time in the eastbound direction.

18.5.42 The routes with the greatest proportional increase in journey times in the 2046 PM peak hour (17:00–18:00) are:

- bus routes 192, 733 and X92 operating on the A6 Stockport Road between the A6010 Alan Turing Way and Manchester City Centre - 20% increase in journey time in the southbound direction; and
- bus routes 201, 202, 203 and 205 operating on the A57 Hyde Road between the A6010 Alan Turing Way and Manchester City Centre - 21% increase in journey time in the eastbound direction.

Table 18-244: Changes in bus journey times with Proposed Scheme in MA07 and MA08, 2038

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		AM peak Hour (08:00–09:00)				PM peak Hour (17:00–18:00)			
		2038 baseline	2038 Proposed Scheme			2038 baseline	2038 Proposed Scheme		
7, 7A, 7B, 171, 172, 219, 220, 221, 703, 704, 707, 719, 747, 768	A6010 Alan Turing Way to Manchester City Centre via A635 Ashton Old Road (westbound)	14:40	19:10	04:30	31%	16:10	18:00	01:50	11%
	Manchester City Centre to A6010 Alan Turing Way via A635 Ashton Old Road (eastbound)	12:10	12:30	00:20	3%	15:50	16:10	00:20	2%
192, 733, X92	A6010 Alan Turing Way to Manchester City Centre via A6 Stockport Road (northbound)	10:40	10:30	00:10	2%	09:30	09:30	00:00	0%
	Manchester City Centre to A6010 Alan Turing Way via A6 Stockport Road (southbound)	10:20	14:40	04:20	42%	09:00	10:30	01:30	17%
216, 230, 231	A6010 Alan Turing Way to Manchester City Centre via A662 Ashton New Road (westbound)	11:10	12:00	00:50	7%	10:50	10:50	00:00	0%
	Manchester City Centre to A6010 Alan Turing Way via A662 Ashton New Road (eastbound)	12:40	12:10	00:30	4%	11:30	11:20	00:10	1%
201, 202, 203, 205	A6010 Alan Turing Way to Manchester City Centre via A57 Hyde Road (westbound)	11:20	11:20	00:00	0%	09:30	09:40	00:10	2%
	Manchester City Centre to A6010 Alan Turing Way via A57 Hyde Road (eastbound)	10:30	14:40	04:10	40%	08:50	10:20	01:30	17%

Table 18-245: Changes in bus journey times with Proposed Scheme in MA07 and MA08, 2046

Bus route(s)	Journey time route section	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)	Time (mm:ss)	Time (mm:ss)	Diff. (mm:ss)	Diff. (%)
		AM peak Hour (08:00–09:00)				PM peak Hour (17:00–18:00)			
		2046 baseline	2046 Proposed Scheme			2046 baseline	2046 Proposed Scheme		
7, 7A, 7B, 171, 172, 219, 220, 221, 703, 704, 707, 719, 747, 768	A6010 Alan Turing Way to Manchester City Centre via A635 Ashton Old Road (westbound)	15:40	20:30	04:50	31%	17:30	18:40	01:10	7%
	Manchester City Centre to A6010 Alan Turing Way via A635 Ashton Old Road (eastbound)	12:30	12:30	00:00	0%	16:10	16:40	00:30	3%
192, 733, X92	A6010 Alan Turing Way to Manchester City Centre via A6 Stockport Road (northbound)	11:00	10:40	00:20	3%	09:30	09:40	00:10	2%
	Manchester City Centre to A6010 Alan Turing Way via A6 Stockport Road (southbound)	10:40	16:10	05:30	52%	09:00	10:50	01:50	20%
216, 230, 231	A6010 Alan Turing Way to Manchester City Centre via A662 Ashton New Road (westbound)	11:20	12:10	00:50	7%	10:50	11:00	00:10	2%
	Manchester City Centre to A6010 Alan Turing Way via A662 Ashton New Road (eastbound)	13:00	12:30	00:30	4%	11:40	11:30	00:10	1%
201, 202, 203, 205	A6010 Alan Turing Way to Manchester City Centre via A57 Hyde Road (westbound)	11:50	11:50	00:00	0%	09:40	09:40	00:00	0%
	Manchester City Centre to A6010 Alan Turing Way via A57 Hyde Road (eastbound)	10:40	16:10	05:30	52%	08:50	10:40	01:50	21%

Pedestrians

Manchester Piccadilly High Speed Station sustainable mode analysis

18.5.43 The mode share forecasts indicate that in the AM peak hour (08:00–09:00), 9% of trips accessing the station and 29% of trips egressing the station are forecast to be made by active modes (walk/cycle), and in the PM peak hour (17:00–18:00), 29% of trips accessing the station and 9% of all trips egressing are forecast to be made by active modes (walk/cycle).

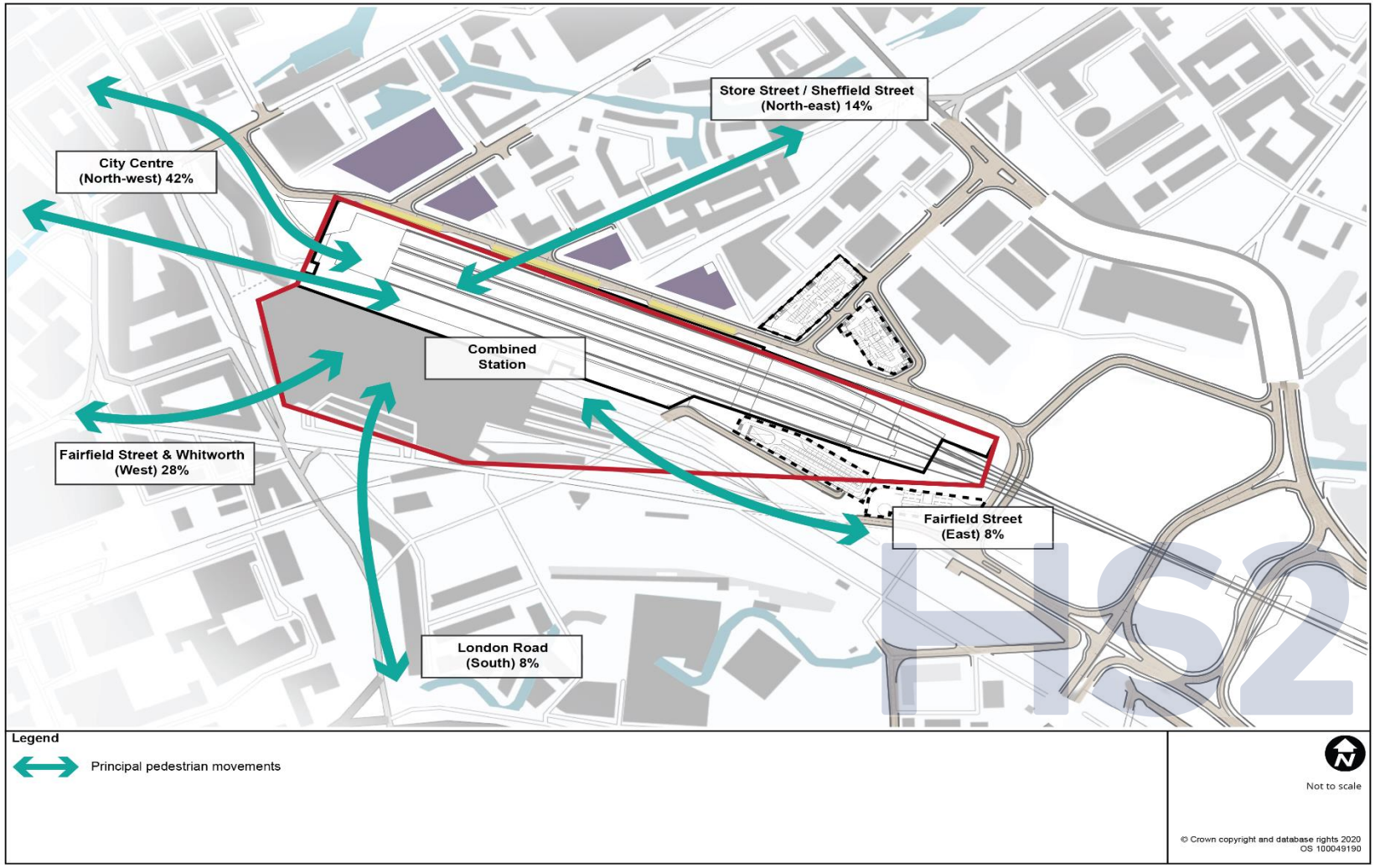
18.5.44 Analysis has been undertaken to understand the impact on key pedestrian movements around Manchester Piccadilly High Speed Station.

18.5.45 Pedestrian demand forecasts for the combined Manchester Piccadilly High Speed Station and the existing Piccadilly Station were derived from the PFM data for the 2038 and 2046 future baseline and with the Proposed Scheme assessments.

18.5.46 Percentage movements have been forecast at the key entrance points around Manchester Piccadilly High Speed Station based on the 2018 surveyed flows.

18.5.47 Figure 18-74 illustrates the forecast distribution of pedestrians travelling to and from both combined Manchester Piccadilly Station and the Manchester Piccadilly High Speed Station.

Figure 18-74: Combined distribution of Manchester Piccadilly and Manchester Piccadilly High Speed Stations pedestrian movements



18.5.48 The majority of pedestrian movements to and from Manchester Piccadilly Station are forecast to take place to and from Manchester city centre (42% of total trips). Pedestrians will enter and exit the station via the Station approach access and either use the ramp adjacent to Gateway House or the London Road pedestrian footbridge.

18.5.49 The Fairfield Street entrance has the second highest number of pedestrian movements with 28% of total trips, providing connection west of the station, towards the University Quarter.

18.5.50 The northern access on New Sheffield Street/Store Street will provide connection towards Piccadilly Strategic Regeneration Framework (SRF) area and is forecast to account for 14% of pedestrian movements to and from the station.

18.5.51 The southern and eastern accesses located on the A6 London Road and at the eastern forecourt off Fairfield Street, provides connection to the Mayfield area and across the A635/A665 Pin Mill Brow gyratory. Each entrance is forecast to account for 8% of pedestrian movements.

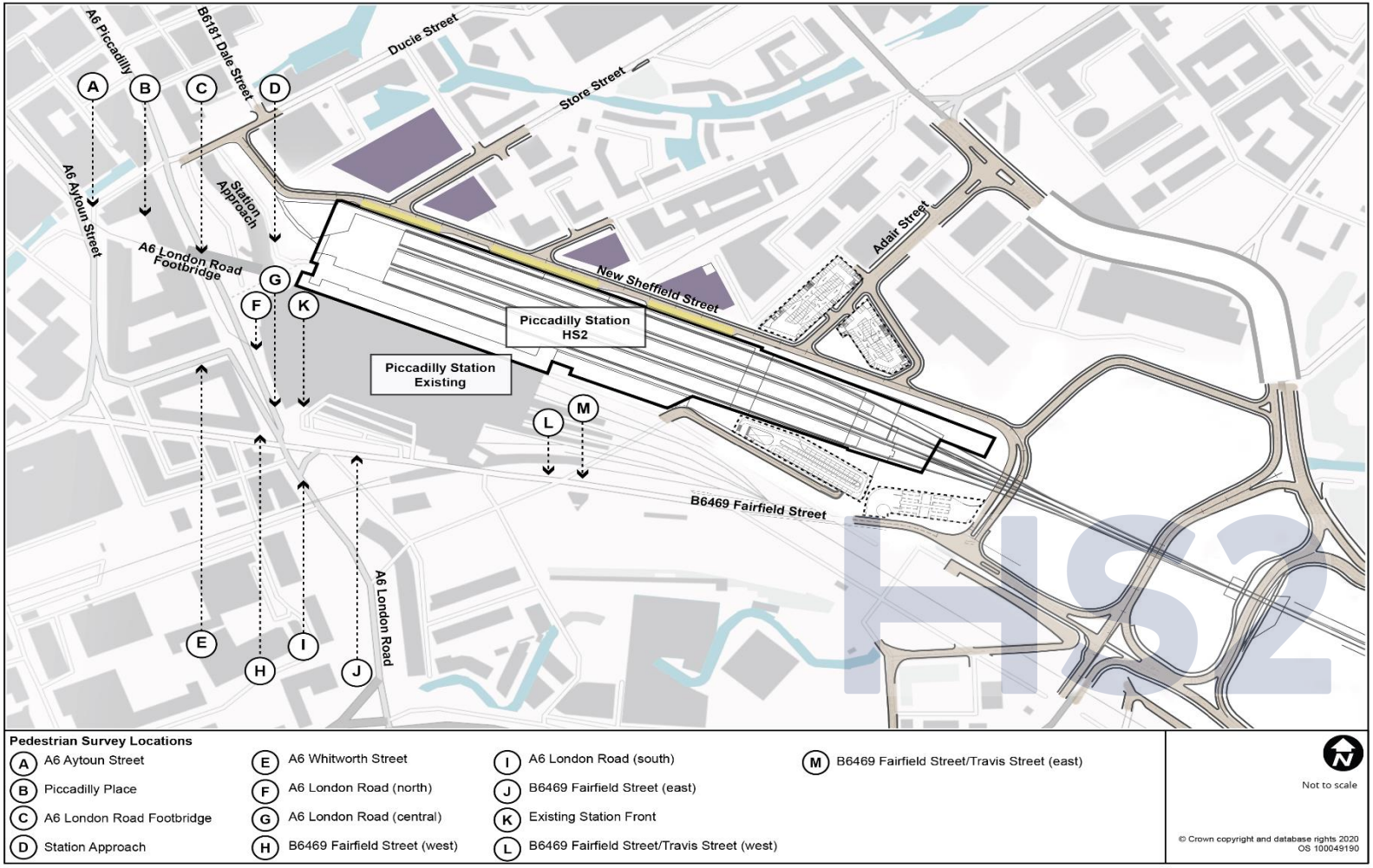
18.5.52 A static assessment has been undertaken to identify the Fruin Level of Service (LoS) thresholds at a number of locations surrounding Manchester Piccadilly High Speed Station. Figure 18-75 shows the location of each assessment.

18.5.53 The Fruin LoS assessment, assigns an LoS level of A to F to give an indication of the ease of movement for pedestrians based on pedestrian flow rate and available roadside footway space. The thresholds range from LoS A indicating free movement, with pedestrians able to move unrestricted, to LoS F indicating a complete breakdown of movement, congestion on roadside footways and pedestrians unable to move freely. Table 18-246 presents the grading levels on the Fruin assessment in terms of pedestrian circulation and the number of pedestrians per metre per minute.

Table 18-246: Level of Service (LoS) – Fruin grading levels

Level of Service threshold	Fruin Level of Service description	Flow rate (ped/min/metre)
A	Free circulation	< 23
B	Uni-directional flows and free circulation Reverse and cross flows with only minor difficulty	23 – 33
C	Slightly restricted circulation due to difficulty in passing others. Reverse and cross flows with difficulty	33 to 49
D	Restricted circulation for pedestrians. Significant difficulty for reverse and cross flows.	49 to 66
E	Restricted circulation for all pedestrians, intermittent stoppages and serious difficulties for reverse and cross flows	66 to 82
F	Complete breakdown in traffic flow with many stoppages	Over 82

Figure 18-75: Location of Fruin assessments



18.5.54 Table 18-247 and Table 18-248 present the results of the assessment for the AM peak hour (08:00–09:00) and PM peak hour (17:00–18:00), respectively. Forecast pedestrian flows for the 2038 and 2046 with Proposed Scheme assessment have been derived from PFM.

18.5.55 The results indicate that LoS will not change between the future baseline and with the Proposed Scheme for the majority of locations. However, there will be two locations in the PM peak hour (17:00–18:00), A6 Aytoun Street and Station Approach, where the LoS is forecast to increase. On the A6 Aytoun Street the LoS will increase from LoS C to LoS D between the 2038 future baseline and 2038 with the Proposed Scheme. On Station Approach, the LoS will increase from LoS A to LoS B between the 2046 future baseline and 2046 with the Proposed Scheme. However, as pedestrian demand is only forecast to increase by around 1.5% in these locations, this will have little impact on pedestrian movement.

Table 18-247: Manchester Piccadilly High Speed Station pedestrian route capacity analysis, AM peak hour (08:00–09:00)

Location	Min walkway width (m)	Effective width (m)	2017 AM baseline peds/min /metre	2017 AM baseline Fruin LoS	2038 AM baseline peds/min /metre	2038 AM baseline Fruin LoS	2038 AM with the Proposed Scheme peds/min /metre	2038 AM with the Proposed Scheme Fruin LoS	2046 AM baseline peds/min /metre	2046 AM baseline Fruin LoS	2046 AM with the Proposed Scheme peds/min /metre	2046 AM with the Proposed Scheme Fruin LoS
A. A6 Aytoun Street	2.09	1.70	39.29	C	45.28	C	45.86	C	46.78	C	47.45	C
B. Piccadilly Place	1.85	1.57	42.55	C	49.03	D	49.66	D	50.65	D	51.38	D
C. A6 London Road Footbridge	3.60	3.30	20.24	A	23.32	B	23.63	B	24.10	B	24.44	B
D. Station Approach	11.23	4.30	17.18	A	19.79	A	20.07	A	20.45	A	20.77	A
E. A6 Whitworth Street	3.68	1.98	3.41	A	3.92	A	3.92	A	4.05	A	4.05	A
F. A6 London Road (north)	2.78	1.68	4.33	A	4.99	A	4.99	A	5.16	A	5.16	A
G. A6 London Road (central)	3.00	1.90	2.84	A	3.27	A	3.67	A	3.38	A	3.91	A
H. B6469 Fairfield Street (west)	3.71	3.08	7.29	A	8.40	A	8.88	A	8.68	A	9.23	A
I. A6 London Road (south)	3.58	2.80	5.69	A	6.56	A	6.71	A	6.77	A	6.96	A
J. B6469 Fairfield Street (east)	2.40	1.90	2.91	A	3.36	A	3.66	A	3.47	A	4.28	A
K. Existing Station Front	2.54	1.58	20.48	A	23.60	B	25.86	B	24.38	B	27.14	B

Location	Min walkway width (m)	Effective width (m)	2017 AM baseline peds/min /metre	2017 AM baseline Fruin LoS	2038 AM baseline peds/min /metre	2038 AM baseline Fruin LoS	2038 AM with the Proposed Scheme peds/min /metre	2038 AM with the Proposed Scheme Fruin LoS	2046 AM baseline peds/min /metre	2046 AM baseline Fruin LoS	2046 AM with the Proposed Scheme peds/min /metre	2046 AM with the Proposed Scheme Fruin LoS
L. B6469 Fairfield Street/Travis Street (west)	2.80	2.20	1.19	A	1.37	A	1.60	A	1.41	A	2.13	A
M. B6469 Fairfield Street/Travis Street (east)	2.28	1.61	1.61	A	1.85	A	1.95	A	1.92	A	2.29	A

Table 18-248: Manchester Piccadilly High Speed Station pedestrian route capacity analysis, PM peak hour (17:00–18:00)

Location	Min walkway width (m)	Effective Width (m)	2017 PM baseline peds/min /metre	2017 PM baseline Fruin LoS	2038 PM baseline peds/min /metre	2038 PM baseline Fruin LoS	2038 PM with the Proposed Scheme peds/min /metre	2038 PM with the Proposed Scheme Fruin LoS	2046 PM baseline peds/min /metre	2046 PM baseline Fruin LoS	2046 PM with the Proposed Scheme peds/min /metre	2046 PM with the Proposed Scheme Fruin LoS
A. A6 Aytoun Street	2.09	1.70	42.27	C	48.71	C	49.40	D	50.32	D	51.12	D
B. Piccadilly Place	1.85	1.57	45.77	C	52.74	D	53.49	D	54.49	D	55.35	D
C. A6 London Road Footbridge	3.60	3.30	21.78	A	25.09	B	25.45	B	25.92	B	26.33	B
D. Station Approach	11.23	4.30	19.32	A	22.26	A	22.56	A	23.00	A	23.35	B
E. A6 Whitworth Street	3.68	1.98	5.29	A	6.10	A	6.10	A	6.30	A	6.30	A

Location	Min walkway width (m)	Effective Width (m)	2017 PM baseline peds/min /metre	2017 PM baseline Fruin LoS	2038 PM baseline peds/min /metre	2038 PM baseline Fruin LoS	2038 PM with the Proposed Scheme peds/min /metre	2038 PM with the Proposed Scheme Fruin LoS	2046 PM baseline peds/min /metre	2046 PM baseline Fruin LoS	2046 PM with the Proposed Scheme peds/min /metre	2046 PM with the Proposed Scheme Fruin LoS
F. A6 London Road (north)	2.78	1.68	4.53	A	5.22	A	5.22	A	5.39	A	5.39	A
G. A6 London Road (central)	3.00	1.90	2.98	A	3.44	A	3.79	A	3.55	A	3.98	A
H. B6469 Fairfield Street (west)	3.71	3.08	4.85	A	5.58	A	6.11	A	5.77	A	6.38	A
I. A6 London Road (south)	3.58	2.80	6.95	A	8.01	A	8.15	A	8.28	A	8.44	A
J. B6469 Fairfield Street (east)	2.40	1.90	3.58	A	4.12	A	4.40	A	4.26	A	5.02	A
K. Existing Station Front	2.54	1.58	23.07	B	26.58	B	28.88	B	27.46	B	30.17	B
L. B6469 Fairfield Street/Travis Street (west)	2.80	2.20	0.46	A	0.53	A	0.60	A	0.54	A	1.11	A
M. B6469 Fairfield Street/Travis Street (east)	2.28	1.61	2.12	A	2.44	A	2.69	A	2.52	A	3.06	A

Cycles

Manchester Airport High Speed Station cycle provision

18.5.56 There will be new parking provision for cyclists at Manchester Airport High Speed Station western forecourt which will provide spaces for up to 300 bicycles based on peak hour cycle demand forecasts and includes for future provision for NPR. This level of provision exceeds the minimum requirements.

18.5.57 Additionally, there will be new cycle routes to the station with entrance points to either end of the west forecourt. The east-west cycle route will retain access to the Hasty Lane underpass (under the M56) and access to the new Thorley Lane bridge. The north-south cycle route will link the station with Hale to the south and Thorley Lane to the north with potential for a direct cycle link to future development in the Timperley Wedge allocation area.

Manchester Piccadilly High Speed Station cycle provision

18.5.58 Figures from PFM and surveys at Manchester Piccadilly Station and Stockport Station have provided a basis to review cycle parking projections. A further review of the long-distance stations survey results highlighted that existing cycle mode share at Manchester Piccadilly Station for long distance services is low at 1%.

18.5.59 There are ambitious cycle plans in Greater Manchester which are being delivered under their 'Bee Network' programme and aims to significantly boost cycle numbers across the conurbation. Though targets are for 20% of short trips to be made by bike, these demand figures for access to the station would be unrealistic given the existing heavy bias towards pedestrian access. However, to reflect ambitions, the current cycle parking has been based on 4% AM peak hour (08:00–09:00) passenger demand by cycle in 2046. This has been adjusted through the day to reflect arrival and departures and create an accumulation profile. Current provision is set at 523 spaces split across two hubs at either end of the station concourse.

18.5.60 There will be a new shared pedestrian/cycleway on New Sheffield Street, the new multi-modal access road, which will link the station area to existing Regional Cycle Route 86 in the Medlock Valley to the north-east and designated on road routes through the city centre to the west, including Dale Street and A6 London Road comprising part of the National Cycle Network Route 66.

Taxis and private hire

Manchester Airport taxi and private hire provision

18.5.61 The design of Manchester Airport High Speed Station includes the provision of dedicated taxi drop-off and pick-up facilities located on the western forecourt. Provision for private hire

vehicle drop-off will be on the eastern forecourt and private hire vehicle pick-up in the new multi-storey car parks.

18.5.62 The locations of the proposed taxi drop-off and pick-up facilities at the Manchester Airport High Speed Station is shown in Volume 5, Traffic and transport Map Book, Map Series TR-01.

18.5.63 The requirements for taxis and private hire drop-off and pick-up has been calculated based on the maximum HS2 demand throughout the day. The average weighted occupancy rates have been derived from the surveys undertaken at the existing Manchester Piccadilly Station and Stockport Station. These provide an hourly profile across a 24-hour period, the rates used for this calculation are:

- taxi/private hire vehicle occupancy rates of 1.29 for trips to and from the station and during the AM peak hour (08:00–09:00); and
- taxi/private hire vehicle occupancy rates of 1.3 for trips to and from the station and during the PM peak hour (17:00–18:00).

18.5.64 Dwell times for vehicles dropping-off and picking-up have been derived from the surveys undertaken at the existing Manchester Piccadilly Station, Stockport Station, drop-off and pick-up facilities and other proposed HS2 stations. These are:

- 90 seconds for taxi/private hire vehicle drop-off;
- 60 second for taxi pick-up; and
- ten minutes for private hire pick-up.

Manchester Piccadilly taxi and private hire provision

18.5.65 The design of Manchester Piccadilly High Speed Station includes the provision of dedicated taxi and private hire vehicle drop-off facilities on New Sheffield Street and dedicated taxi and private hire vehicle pick-up facilities located and at the eastern forecourt.

18.5.66 The existing Manchester Piccadilly taxi rank and drop-off provision accessed from the B6469 Fairfield Street is not affected by the Proposed Scheme.

18.5.67 The locations of the proposed taxi and private hire drop off and pick-up areas on New Sheffield Street and at the eastern forecourt are shown in Volume 5, Traffic and transport Map Book, Map Series TR-01.

18.5.68 As with Manchester Airport High Speed Station, the calculation of the requirements for taxis and private hire drop-off and pick-up has been based on the maximum HS2 demand throughout the day. The average weighted occupancy rates have been derived from the surveys undertaken at the existing Manchester Piccadilly Station. Taxi/private hire occupancy rates and drop off/pick up dwell times are the same as those used for Manchester Airport High Speed Station.

Private vehicle pick-up and drop-off

Manchester Airport High Speed Station private vehicle pick-up and drop-off provision

18.5.69 The design of Manchester Airport High Speed Station includes the provision of private vehicle drop-off and pick-up facilities to provide for private car (kiss and ride) trips.

18.5.70 The calculation of the requirements for private vehicle drop-off and pick-up bays has been based on the maximum HS2 demand throughout the day. Private vehicle pick-up and drop-off times have been derived from the taxi pick-up and drop-off dwell time values.

Manchester Piccadilly High Speed Station private vehicle pick-up and drop-off provision

18.5.71 The design of Manchester Piccadilly High Speed Station includes the provision of private vehicle drop-off and pick-up facilities to provide for private car (kiss and ride), with private vehicle pick-up bays at the eastern forecourt and private vehicle drop-off bays located on New Sheffield Street.

18.5.72 The calculation of the requirements for private vehicle drop-off and pick-up bays has been based on the maximum HS2 demand throughout the day. Private vehicle pick-up and drop-off times have been derived from the taxi pick-up and drop-off dwell time values.

Private vehicle parking

Manchester Airport High Speed Station parking provision

18.5.73 The design of Manchester Airport High Speed Station includes the provision of two new multi-storey car parks, comprising 3,818 spaces, including 40 staff bays and 21 bays for private car pick-up. This includes provision for HS2 and future NPR.

18.5.74 The proposed number of car parking spaces for Manchester Airport High Speed Station is based on the forecast peak parking accumulation, which has been calculated using forecasts of daily car parking demand associated with HS2 and NPR and parking accumulation profiles from surveys of the existing station car parks at Manchester Piccadilly Station. The car parking figures include an additional 7% of spaces to allow for daily variations in demand and efficiency of operation.

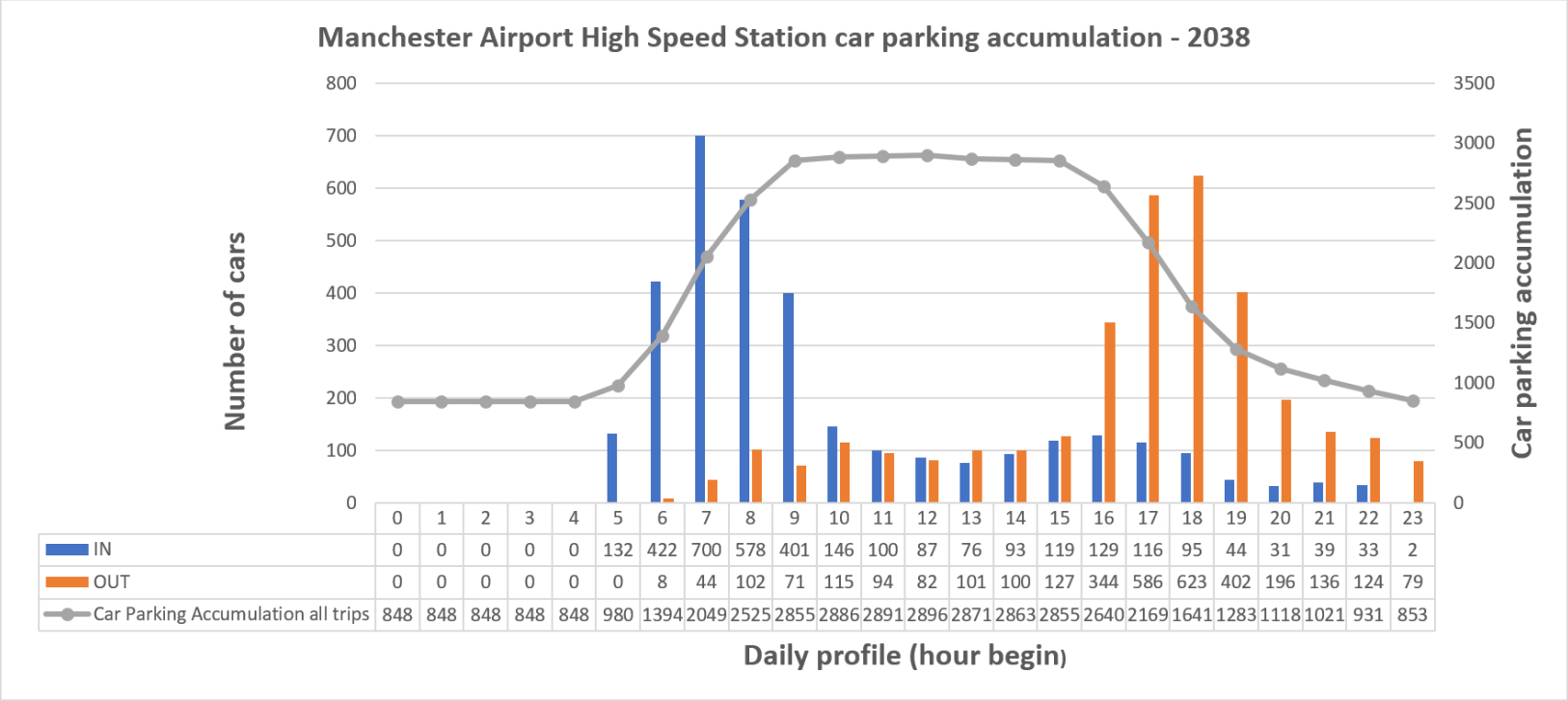
18.5.75 Boarding and alighting passenger numbers have been balanced across the day to ensure zero accumulation at the end of the day.

18.5.76 Vehicle occupancy has been accounted for within the analysis, and factors have been derived from reference to TfGM model data and observed station survey data. Car occupancy factors by hour range from a minimum value of 1.22 to a maximum value of 1.48 across the 24 hour daily profile.

18.5.77 The percentage of vehicles that park for single and multiple days and corresponding average duration of stay have been estimated from Manchester Piccadilly Station and Stockport Station car parking surveys. The values estimated for Manchester Airport High Speed Station are that 20.0% of vehicles park for more than one day, and average length of stay is estimated to be 1.29 days.

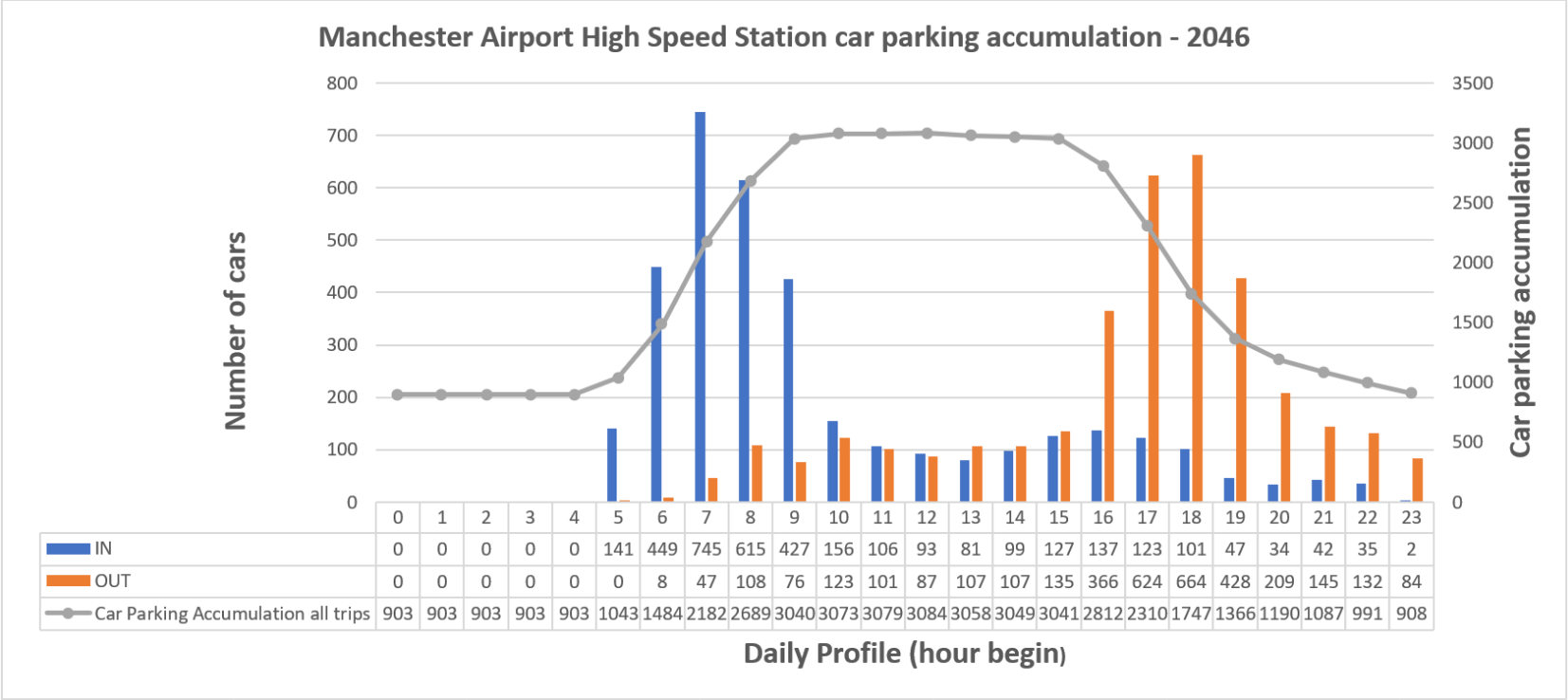
18.5.78 The resulting parking accumulation is shown in Figure 18-76 and Figure 18-77 for 2038 and 2046, respectively.

Figure 18-76: Manchester Airport High Speed Station car parking accumulation, 2038



	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
IN	0	0	0	0	0	132	422	700	578	401	146	100	87	76	93	119	129	116	95	44	31	39	33	2
OUT	0	0	0	0	0	0	8	44	102	71	115	94	82	101	100	127	344	586	623	402	196	136	124	79
Car Parking Accumulation all trips	848	848	848	848	848	980	1394	2049	2525	2855	2886	2891	2896	2871	2863	2855	2640	2169	1641	1283	1118	1021	931	853

Figure 18-77: Manchester Airport High Speed Station car parking accumulation, 2046



	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
IN	0	0	0	0	0	141	449	745	615	427	156	106	93	81	99	127	137	123	101	47	34	42	35	2
OUT	0	0	0	0	0	0	8	47	108	76	123	101	87	107	107	135	366	624	664	428	209	145	132	84
Car Parking Accumulation all trips	903	903	903	903	903	1043	1484	2182	2689	3040	3073	3079	3084	3058	3049	3041	2812	2310	1747	1366	1190	1087	991	908

Manchester Piccadilly High Speed Station parking provision

18.5.79 The design of Manchester Piccadilly High Speed Station includes the provision of two new multi-storey car parks, comprising a total of 2,029 parking spaces. This includes provision for HS2 and future NPR.

18.5.80 The proposed number of car parking spaces for Manchester Piccadilly High Speed Station is based on the forecast peak parking accumulation, which has been calculated using forecasts of daily car parking demand associated with HS2 and NPR and parking accumulation profiles from surveys of the existing station car parks at Manchester Piccadilly Station. The car parking figures include an additional 7% of spaces to allow for daily variations in demand and efficiency of operation.

18.5.81 In addition, an allowance is also made for the replacement of car parking spaces at Manchester Piccadilly Station multi-storey car park, Network Rail Ramp, Network Rail undercroft and Gateway House car park, that will be displaced by the Proposed Scheme.

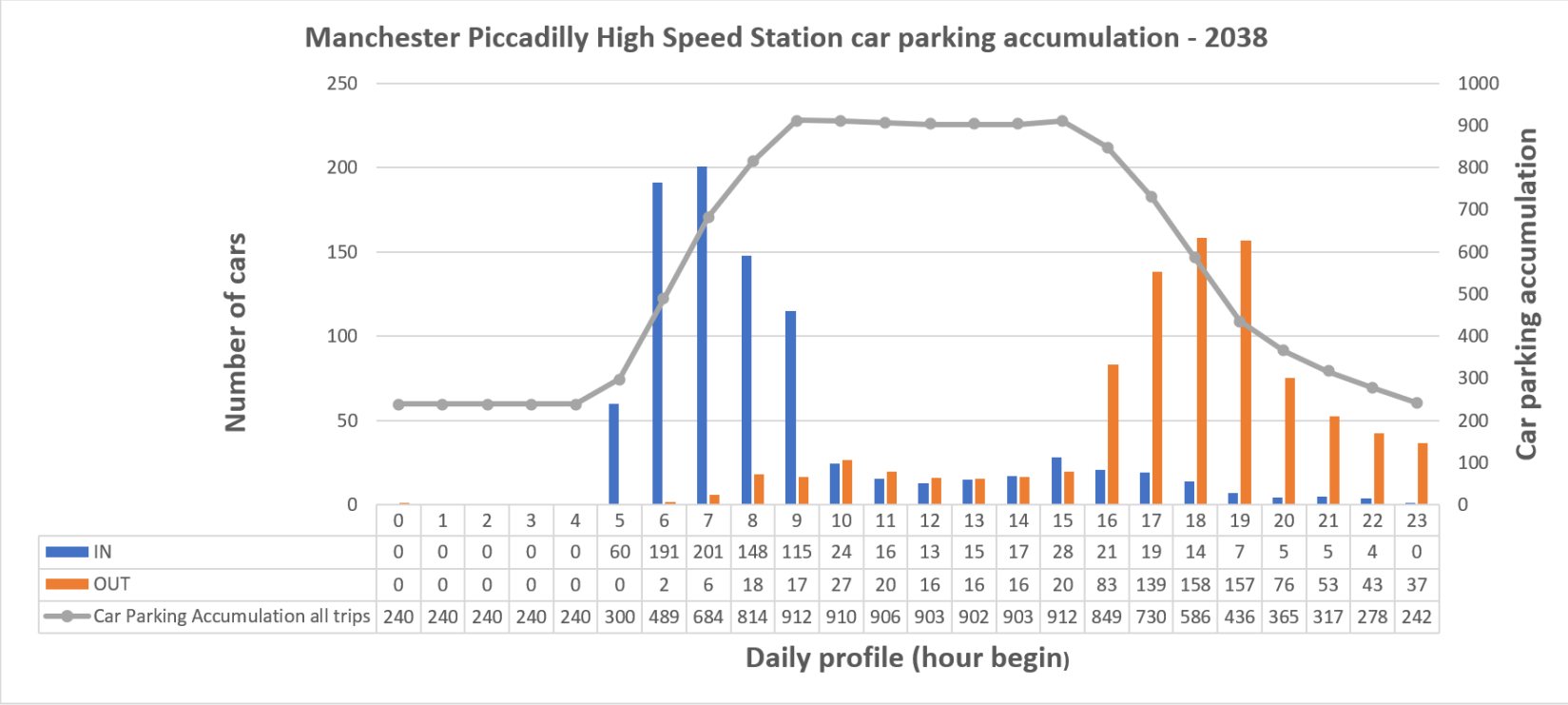
18.5.82 Boarding and alighting passenger numbers have been balanced across the day to ensure zero accumulation at the end of the day.

18.5.83 Vehicle occupancy has been accounted for within the analysis, and factors have been derived from reference to TfGM model data and observed station survey data. Car occupancy factors by hour range from a minimum value of 1.22 to a maximum value of 1.48 across the 24 hour daily profile.

18.5.84 The percentage of vehicles that park for single and multiple days and corresponding average duration of stay have been estimated from Manchester Piccadilly Station and Stockport Station car parking surveys. The values estimated for Manchester Piccadilly High Speed Station are that 21.5% of vehicles park for more than one day, and average length of stay is estimated to be 1.32 days.

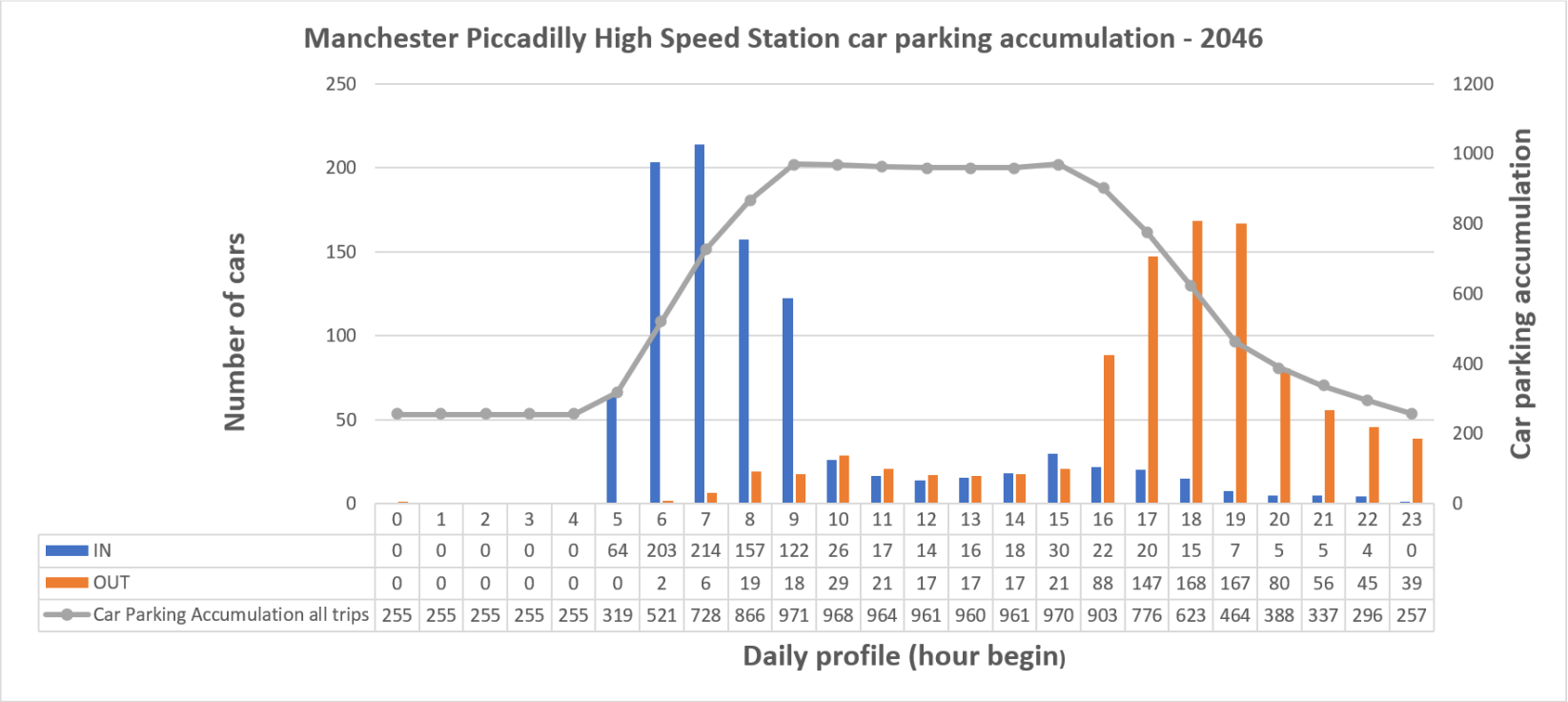
18.5.85 The resulting parking accumulation is shown in Figure 18-78 and Figure 18-79 for 2038 and 2046, respectively.

Figure 18-78: Manchester Piccadilly High Speed Station parking accumulation, 2038



	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
IN	0	0	0	0	0	60	191	201	148	115	24	16	13	15	17	28	21	19	14	7	5	5	4	0
OUT	0	0	0	0	0	0	2	6	18	17	27	20	16	16	16	20	83	139	158	157	76	53	43	37
Car Parking Accumulation all trips	240	240	240	240	240	300	489	684	814	912	910	906	903	902	903	912	849	730	586	436	365	317	278	242

Figure 18-79: Manchester Piccadilly High Speed Station parking accumulation, 2046



	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
IN	0	0	0	0	0	64	203	214	157	122	26	17	14	16	18	30	22	20	15	7	5	5	4	0
OUT	0	0	0	0	0	0	2	6	19	18	29	21	17	17	17	21	88	147	168	167	80	56	45	39
Car Parking Accumulation all trips	255	255	255	255	255	319	521	728	866	971	968	964	961	960	961	970	903	776	623	464	388	337	296	257

Servicing

Manchester Airport High Speed Station servicing

18.5.86 The design of Manchester Airport High Speed Station includes facilities for servicing. The loading area will be located beneath the eastern forecourt with an access ramp to the north.

18.5.87 Service vehicles will access the station using the eastern access road, which will be accessed via the new A538 Hale Road gyratory.

MA08 Manchester Piccadilly High Speed Station servicing

18.5.88 The design of Manchester Piccadilly High Speed Station includes facilities for servicing. There will be loading bays located at the western and eastern ends of the station.

18.5.89 The western loading area is an expansion of the existing Manchester Piccadilly Station loading bay that will be displaced by the construction of the HS2 station. The eastern loading area is a new facility specifically designed for Manchester Piccadilly High Speed Station.

18.5.90 It is proposed that the western loading area will:

- service the retail facilities and back-of-house facilities of the HS2 concourses;
- replace the existing Network Rail loading bay servicing the existing station including retail; and
- provide for parking of British Transport Police or emergency vehicles.

18.5.91 The eastern loading area will serve the functions of the HS2 station only, including:

- delivery of catering goods for train services;
- removal of waste from train services and other sources;
- delivery of replacement plant; and
- access to platform level via a goods lift.

18.5.92 Service vehicles will access the station using Adair Street and New Sheffield Street.

Highway network

Highway diversions, realignments and closures

MA06

18.5.93 Table 18-249 summarises the permanent road diversions, realignments and extensions and any new or altered junctions required to accommodate the Proposed Scheme in the MA06 area. New or altered junctions are assessed under junction performance.

Table 18-249: MA06 permanent highway diversion/closure/amendment

Highway name/junction	Description	Change/alteration
Millington Lane	Realignment of Millington Lane up to 5m above ground level for 296m, crossing the route of the Proposed Scheme on Millington Lane overbridge.	Change in journey length of less than 100m.
A556	Realignment of the A556, up to 1m above ground level for 300m, crossing the route of the Proposed Scheme on the A556 Chester Road overbridge.	Change in journey length of less than 100m.
Tom Lane	Closure of Tom Lane for motorised vehicles where it crosses the route of the Proposed Scheme.	Tom Lane will be retained as a private access road for Yarwood Heath Farm, resulting in a change in journey length of less than 100m.
Ashley Road	Closure of Ashley Road where it crosses the route of the Proposed Scheme. Ashley Road will be diverted 850m south-east of its current alignment for 1km.	Users to be diverted via the Ashley Road diversion for 1km. Users of the Ashley Road diversion will join the Mobberley Road realignment before crossing the route of the Proposed Scheme underneath the Mid-Cheshire (Railway) and Mobberley Road viaduct, increasing journey length by up to 2.7km.
Lamb Lane	Closure of Lamb Lane where it crosses the route of the Proposed Scheme west of the Ashley Road auto-transformer station.	Users will be diverted along the diverted Ashley Road, increasing journey length by up to 2.2km.
Mobberley Road	Realignment of Mobberley Road, up to 142m east of its current alignment for 824m.	The Mobberley Road realignment will cross over the Mid-Cheshire Line via the Mobberley Road offline overbridge, resulting in a change in journey length of less than 100m.
Brickhill Lane	Permanent diversion of Brickhill Lane, up to 360m east of its current alignment for 454m and closure of Brickhill Lane where it crosses the route of the Proposed Scheme.	Users will be diverted along Back Lane, realigned Castle Mill Lane and diverted Brickhill Lane, crossing the route of the Proposed Scheme on the Castle Mill Lane overbridge, increasing journey length by up to 856m.
Castle Mill Lane	Realignment of Castle Mill Lane, up to 50m north of its current alignment for 440m, crossing the route of the Proposed Scheme on the Castle Mill Lane overbridge.	Increase in journey length by up to 215m.
Sunbank Lane	Realignment of Sunbank Lane, up to 20m west of its current alignment for 316m, crossing the route of the Proposed Scheme on the Sunbank Lane overbridge.	Change in journey length of less than 100m.

Highway name/junction	Description	Change/alteration
A538 Hale Road	Realignment of a section of the A538 Hale Road, 285m north-east of its current alignment for 725m.	Eastbound traffic will cross the route of the Proposed Scheme via A538 Hale Road overbridge (north) and follow the new A538 Hale Road/Station access gyratory to the north of the A538 Hale Road, increasing journey length by up to 368m. Westbound traffic will cross the route of the Proposed Scheme via A538 Hale Road overbridge (south) and follow the existing A538 Hale Road with no change in journey length.
A538 Wilmslow Road	Widening between the western and eastern sides of the M56 junction 6 from two lanes in each direction to four lanes in each direction.	There will be no change in journey length on this section for eastbound or westbound traffic.
Hasty Lane	Closure of Hasty Lane, 135m north-west of A538 Hale Road overbridge (south).	The A538 Hale Road service road (north) will be provided to maintain access to residential properties, resulting in no change in journey length.
Thorley Lane	Realignment of Thorley Lane, 55m to the south of its current alignment for 456m, crossing the route of the Proposed Scheme over the Thorley Lane overbridge.	Change in journey length of less than 100m.

MA07

18.5.94 Table 18-250 summarises the permanent road diversions, realignments and extensions and any new or altered junctions required to accommodate the Proposed Scheme in the MA07 area. New or altered junctions are assessed under junction performance.

Table 18-250: MA07 permanent highway diversion/closure/amendment

Highway name/junction	Description	Change/alteration
A665 Midland Street	Closure of the A665 Midland Street at its northern end where it is crossed by the route of the Proposed Scheme.	Users will be diverted via a retained 10m section of the A665 Midland Street and the A665 Chancellor Lane diversion, increasing the journey length by up to 860m.
Glenbarry Street	This cul-de-sac will be permanently closed as it will be intersected by the route of the Proposed Scheme.	The industrial units and commercial properties that this cul-de-sac serves will be removed, therefore, there will be no change in journey length.
Hooper Street	This cul-de-sac will be permanently closed as it will be intersected by the route of the Proposed Scheme.	The industrial units and commercial properties that this cul-de-sac serves will be removed, therefore, there will be no change in journey length.

Highway name/junction	Description	Change/alteration
Rondin Close	This cul-de-sac will be permanently closed as it will be intersected by the route of the Proposed Scheme.	The industrial units and commercial properties that this cul-de-sac serves will be removed, therefore, there will be no change in journey length.

MA08

18.5.95 Table 18-251 summarises the permanent road diversions, realignments and extensions and any new or altered junctions required to accommodate the Proposed Scheme in the MA08 area. New or altered junctions are assessed under junction performance.

Table 18-251: MA08 permanent highway diversion/closure/amendment

Highway name/junction	Description	Change/alteration
A635 Ashton Old Road	Permanent realignment of a 150m section of the A635 Ashton Old Road to accommodate the closure of the northern section of the A665 Chancellor Lane and the diverted A635 Fairfield Street. The realigned A635 Ashton Old Road will tie in with the realigned A665 Pin Mill Brow.	The longest diversion is for traffic travelling from the A635 Ashton Old Road to the A665 Great Ancoats Street. Users will be diverted around the new gyratory system, increasing journey length by up to 392m.
A665 Chancellor Lane	Permanent diversion of the A665 Chancellor Lane 70m north-west of its existing alignment for 210m.	The longest diversion is for traffic travelling from the A665 Chancellor Lane to the A665 Great Ancoats Street. Users will be diverted along the A665 Chancellor Lane diversion and around the new gyratory system, increasing journey length by up to 436m.
A635 Mancunian Way (northbound)	Permanent realignment of a 307m section of the A635 Mancunian Way northbound carriageway, within the footprint of the existing road.	Change in journey length of less than 100m.
A635 Mancunian Way (southbound)	Permanent realignment of the southbound carriageway of the A635 Mancunian Way, 100m north-west of its current alignment for 200m, to form the western side of the A635/A665 Pin Mill Brow gyratory.	The realigned A635 Mancunian Way will tie in with the realigned A665 Pin Mill Brow and the junction between the diverted B6469 Fairfield Street and the diverted A665 Chancellor Lane, resulting in a change in journey length of less than 100m.
A665 Pin Mill Brow	Permanent realignment of a 300m section of the A665 Pin Mill Brow at its southern extent to accommodate the closure of the A665 Chancellor Lane and diverted A635 Fairfield Street.	The realigned A665 Pin Mill Brow will be within the existing carriageway and will tie in with the diverted A635 Fairfield Street, the realigned A635 Ashton Old Road and the realigned A635 Mancunian Way, increasing journey length by up to 394m.
A635 Fairfield Street	Permanent diversion of the A635 Fairfield Street 200m south of its current alignment for 590m.	The diverted A635 Fairfield Street will tie in with the diverted A665

Highway name/junction	Description	Change/alteration
		Chancellor Lane, increasing journey length by up to 151m.
B6469 Fairfield Street	Permanent diversion up to 85m south-east of its current alignment for 245m.	The diverted B6469 Fairfield Street will tie in with the realigned A635 Mancunian Way, increasing journey length by up to 121m.
A665 Great Ancoats Street	Permanent realignment of the A665 Great Ancoats Street at its junction with Adair Street to facilitate junction improvements. The junction with the A665 Great Ancoats Street will be changed to an all movement traffic signal-controlled junction.	No change in journey length.
A6 London Road	Permanent realignment of the junction with Ducie Street to facilitate junction improvements and to accommodate the realignment of Ducie Street.	No change in journey length.
Helmet Street	Permanent closure of a 100m section of Helmet Street at the southern extent between New Sheffield Street and St. Andrew's Street. A short section of Helmet Street will be realigned to form a new junction with New Sheffield Street.	Change in journey length of less than 100m.
St. Andrew's Street	Permanent diversion of St. Andrew's Street, 100m east of its current alignment for 260m, and forming part of New Sheffield Street.	Change in journey length of less than 100m.
Travis Street	Permanent closure of a 215m section of Travis Street between the junction with the diverted B6469 Fairfield Street and New Sheffield Street.	Increase in journey length by up to 457m.
Sheffield Street	Diversion of Sheffield Street, 70m north of its current alignment for 886m onto New Sheffield Street, which will connect to Ducie Street, Helmet Street, Travis Street, Chapeltown Street and Store Street, immediately north of Manchester Piccadilly High Speed station.	Change in journey length of less than 100m.
Baird Street	Permanent closure of a 105m section of Baird Street at the southern end between the junction with Sheffield Street to where it will be crossed by New Sheffield Street.	Access to the northern section of Baird Street will be retained via Congou Street, resulting in a change in journey length of less than 100m.
Boad Street	Diversion of Boad Street, 60m to the north-east, to run parallel and north of the Manchester Piccadilly High Speed station, forming part of New Sheffield Street.	Change in journey length of less than 100m.
Store Street	Closure of an 85m section of Store Street at the southern end between the A6 London Road and Boad Street.	Store Street will be realigned to facilitate connection to New Sheffield Street, and will be retained as a one-way exit from New Sheffield Street, providing access to the A665 Great Ancoats Street, increasing journey length by up to 217m.
St. Andrew's Square	Permanent closure of a 26m section of St. Andrew's Square at the southern end. St. Andrew's Square	Change in journey length of less than 100m.

Highway name/junction	Description	Change/alteration
	will join onto New Sheffield Street. It will form part of the gyratory system that provides access to the new car parks and will become one-way northbound between New Sheffield Street and Adair Street.	
Adair Street	Adair Street will join onto New Sheffield Street and will form part of the gyratory system that provides access to the car parks. Adair Street will become one-way southbound between St. Andrew's Square and New Sheffield Street.	Change in journey length of less than 100m.
Chapeltown Street	Permanent realignment of an 85m section at the south-western end and junction improvements with New Sheffield Street to enable access between the two streets. Chapeltown Street will become one-way southbound at its southern end.	Traffic will be diverted via New Sheffield Street and the diverted Store Street, increasing journey length by 101m.
Ducie Street	Permanent realignment of a 100m section at the western extent to accommodate the construction of a new junction with New Sheffield Street.	No change in journey length.
Mellor Street	Closed as a public highway and will form part of the new access road to the Network Rail maintenance compound.	No change in journey length.
Cresbury Street	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory and removal of the units that it serves.	No change in journey length.
Dark Lane	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory and removal of the units that it serves.	No change in journey length.
William Street	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory removal of the units that it serves.	No change in journey length.
Mill Green Street	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory and removal of the units that it serves.	No change in journey length.
Adlington Street	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory and removal of the units that it serves.	No change in journey length.
Union Street	Permanent closure of a 10m section of Union Street at the northern extent to enable construction of the new link road between the A635 Mancunian way and A665 Chancellor Lane.	Change in journey length of less than 100m.
North Western Street	Permanent closure due to the construction and removal of the units that it serves.	No change in journey length.
Crane Street	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory and removal of the units that it serves.	No change in journey length.
Coronation Square	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory and removal of the units that it serves.	No change in journey length.

Highway name/junction	Description	Change/alteration
Blackett Street	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory and removal of the units that it serves.	No change in journey length.
Elbe Street	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory and removal of the units that it serves.	No change in journey length.
Raven Street	Permanent closure due to the construction of the new A635/A665 Pin Mill Brow gyratory and removal of the units that it serves.	No change in journey length.
Sparkle Street	Permanent closure of Sparkle Street where it crosses the route of the Proposed Scheme.	No change in journey length.
Leycroft Street	Permanent closure of Leycroft Street where it crosses the route of the Proposed Scheme.	No change in journey length.

Network traffic flows

18.5.96 In addition to highway changes set out above, the introduction of HS2 service at Manchester Airport High Speed Station (MA06) and Manchester Piccadilly High Speed Station (MA08) will introduce other changes to the transport provision that will result in changes in travel patterns in the area. These include:

- new cycle parking facilities;
- new taxi and private vehicle pick-up and drop-off facilities;
- provision for shuttle bus services with new bus stops adjacent to the stations; and
- multi-storey car parks to accommodate HS2 passengers and staff.

Strategic and local road network traffic flows

18.5.97 The impacts of the Proposed Scheme on the highway network have been assessed by undertaking strategic model runs for the 2038 and 2046 'with HS2' scenarios, and by comparing the flows and delays against the corresponding future baseline scenarios.

18.5.98 Changes have been made within the strategic model to reflect the new stations and the consequential changes to travel patterns, together with proposed changes to the road network including road closures, realigned roads and changes to junction operations.

MA06

18.5.99 The M6 junction 19 Model has been used to model the operation scenarios in the more rural western part of the MA06 area, south of the River Bollin. The Greater Manchester SATURN Model and the Greater Manchester Public Transport Model have been used to model the operation scenarios in the more urban eastern part of the MA06 area, north of the River Bollin.

18.5.100 Table 18-252 and Table 18-253 set out the traffic flows on highway links affected by operation of the Proposed Scheme for the weekday AM peak hour (08:00–09:00) for 2038 and 2046 respectively. Table 18-254 and Table 18-255 cover the weekday PM peak hour (17:00–18:00) for 2038 and 2046 respectively. Due to the simplified way in which the road network is represented in the strategic models, the use of some local roads may not be precisely reflected in the forecast traffic flows during operation of the Proposed Scheme, however, this is not expected to change the conclusions of the assessment.

18.5.101 Traffic flows on all other links are either unaffected from the future baseline or result in only small changes.

18.5.102 Traffic flow changes are shown in Figure 18-80, Figure 18-81, Figure 18-82 and Figure 18-83 for the AM and PM peak hours respectively for both 2038 and 2046. The width of the band indicates the proportional change in traffic, with red representing an increase and green a decrease compared with the 2038 and 2046 future baseline scenario. Flow changes are the combination of changes in passenger demand and reassigned baseline traffic.

Table 18-252 : MA06 impacted links, 2038 AM peak

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Ashley Road (between Rostherne Lane and A5034 Mereside Road)	NB	373	8	275	7	-98	-1	-26%	-13%
	SB	99	4	60	4	-39	0	-39%	0%
Mobberley Road (between Breach House Lane and Ashley Road diversion)	NB	384	0	405	0	21	0	5%	0%
	SB	351	1	356	1	5	0	1%	0%
Ashley Road (between Birkinheath Lane and Rostherne Lane)	EB	366	4	275	3	-91	-1	-25%	-25%
	WB	173	1	109	1	-64	0	-37%	0%
A538 Wilmslow Road (between Mill Lane and Altrincham Road)	NB	876	48	973	48	97	0	11%	0%
	SB	858	56	966	61	108	5	13%	9%
Ashley Road diversion (between Birkinheath Lane and Mobberley Road)	EB	366	4	275	3	-91	-1	-25%	-25%
	WB	173	1	109	1	-64	0	-37%	0%
Mobberley Road realignment (between Ashley Road diversion and Back Lane)	NB	384	0	651	3	267	3	70%	0%
	SB	351	1	436	2	85	1	24%	100%
Mill Lane/Castle Mill Lane/Tanyard Lane/Back Lane (between A538 Wilmslow Road and Mobberley Road)	EB	279	3	269	2	-10	-1	-4%	-33%
	WB	91	0	50	0	-41	0	-45%	0%
A538 Wilmslow Road (between Sunbank Lane and Mill Lane)	NB	824	47	889	47	65	0	8%	0%
	SB	715	55	886	60	171	5	24%	9%
A538 Wilmslow Road (between Sunbank Lane and Runger Lane)	NB	1,039	57	1,116	60	77	3	7%	5%
	SB	1,281	66	1,498	72	217	6	17%	9%
Runger Lane (between A538 Wilmslow Road and Avro Way)	NB	1,201	19	1,616	30	415	11	35%	58%
	SB	578	13	385	14	-193	1	-33%	8%
A538 Wilmslow Road (between Runger Lane and A538 Hale Road)	EB	1,660	65	1,992	60	332	-5	20%	-8%
	WB	1,043	59	1,362	58	319	-1	31%	-2%
A538 Hale Road (between A538 Hale Road/station access gyratory southbound and A538 Hale Road/station access gyratory northbound)	WB	-	-	1,384	26	-	-	-	-

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A538 Hale Road/station access gyratory (between Manchester Airport High Speed station access road east and A538 Wilmslow Road)	SB	-	-	1,742	18	-	-	-	-
A538 Hale Road (between High Elm Road and A538 Hale Road/station access gyratory)	EB	-	-	1,347	18	-	-	-	-
	WB	-	-	557	25	-	-	-	-
A538 Hale Road/station access gyratory (between A538 Hale Road and Manchester Airport High Speed station access road west)	NB	-	-	2,198	18	-	-	-	-
	SB	-	-	23	0	-	-	-	-
Chicago Avenue (between World Way and Malaga Avenue)	EB	178	20	239	29	61	9	34%	45%
	WB	719	34	759	44	40	10	6%	29%
Car park access (between Chicago Avenue and Area 2 car park)	EB	328	31	331	40	3	9	1%	29%
	WB	230	33	242	45	12	12	5%	36%
A538 Hale Road/station access gyratory (between Manchester Airport High Speed station access road west and Manchester Airport High Speed station access road east)	EB	-	-	2,198	18	-	-	-	-
	WB	-	-	23	0	-	-	-	-
A538 Hale Road (between Elmridge Drive and High Elm Road)	EB	939	15	920	9	-19	-6	-2%	-40%
	WB	427	13	361	12	-66	-1	-15%	-8%
World Way (between Terminal 2 Roundabout and Chicago Avenue)	NB	1,058	33	1,254	41	196	8	19%	24%
	SB	852	51	914	61	62	10	7%	20%
Runger Lane (between Avro Way and Thorley Lane)	NB	707	11	1,131	22	424	11	60%	100%
	SB	463	9	278	10	-185	1	-40%	11%
Elmridge Drive (between A538 Hale Road and High Elm Road)	NB	596	1	517	0	-79	-1	-13%	-100%
	SB	25	0	17	0	-8	0	-32%	0%
Chapel Lane (between Tithebarn Road and Wicker Lane)	EB	63	1	60	1	-3	0	-5%	0%
	WB	123	4	157	4	34	0	28%	0%
Tithebarn Road (between A538 Hale Road and Chapel Lane)	NB	42	0	103	1	61	1	145%	0%
	SB	149	4	186	4	37	0	25%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A538 Hale Road (between Tithebarn Road and Elmridge Drive)	EB	814	15	785	9	-29	-6	-4%	-40%
	WB	871	15	725	12	-146	-3	-17%	-20%
Hawley Lane (between Broad Lane and Wicker Lane)	EB	60	1	60	1	0	0	0%	0%
	WB	134	4	157	4	23	0	17%	0%
A538 Hale Road (between Wicker Lane and Tithebarn Road)	EB	917	19	936	13	19	-6	2%	-32%
	WB	867	15	793	13	-74	-2	-9%	-13%
Enterprise Way (between Thorley Lane and Terminal 2 Roundabout)	NB	1,038	14	988	24	-50	10	-5%	71%
	SB	468	6	463	17	-5	11	-1%	183%
Palma Avenue (between Sydney Avenue and World Way)	EB	811	8	971	8	160	0	20%	0%
	WB	109	2	141	2	32	0	29%	0%
Thorley Lane (between Sydney Avenue and Jet Parks 1)	NB	741	19	749	26	8	7	1%	37%
	SB	217	4	241	15	24	11	11%	275%
A538 Hale Road (between Wicker Lane and Shay Lane)	EB	921	20	937	14	16	-6	2%	-30%
	WB	857	16	794	14	-63	-2	-7%	-13%
Thorley Lane (between Etrop Grange Hotel access and Bailey Lane)	EB	741	21	736	28	-5	7	-1%	33%
	WB	373	5	377	15	4	10	1%	200%
Thorley Lane (between Runger Lane and Sydney Avenue)	EB	1,107	21	1,074	29	-33	8	-3%	38%
	WB	502	10	361	21	-141	11	-28%	110%
Thorley Lane (between Shay Lane and Runger Lane)	EB	227	0	224	12	-3	12	-1%	0%
	WB	354	4	375	15	21	11	6%	275%
Shay Lane (between Thorley Lane and Ash Lane)	EB	18	0	26	1	8	1	44%	0%
	WB	83	0	125	0	42	0	51%	0%
Church Brow (between Stamford Road and B5160 Park Road)	WB	111	3	128	3	17	0	15%	0%
Grove Lane (between A5144 Delahays Road and Wellfield Lane)	EB	383	12	463	13	80	1	21%	8%
	WB	349	8	359	8	10	0	3%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A538 Manor Road (between Hamon Road and A538 Lloyd Street)	NB	51	0	49	0	-2	0	-4%	0%
	SB	48	1	60	1	12	0	25%	0%
A538 Manor Road (between Moss Lane and Hamon Road)	NB	61	0	64	0	3	0	5%	0%
	SB	119	1	136	1	17	0	14%	0%
Atlantic Street (between Lyon Road and Baltic Road)	EB	152	1	174	1	22	0	14%	0%
	WB	47	2	45	2	-2	0	-4%	0%

Table 18-253: MA06 impacted links, 2046 AM peak

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Ashley Road (between Rostherne Lane and A5034 Mereside Road)	NB	381	8	278	7	-103	-1	-27%	-13%
	SB	114	4	62	4	-52	0	-46%	0%
Mobberley Road (between Breach House Lane and Ashley Road diversion)	NB	391	0	420	0	29	0	7%	0%
	SB	366	1	361	1	-5	0	-1%	0%
Ashley Road (between Birkinheath Lane and Rostherne Lane)	EB	376	4	283	3	-93	-1	-25%	-25%
	WB	193	1	132	1	-61	0	-32%	0%
A538 Wilmslow Road (between Mill Lane and Altrincham Road)	NB	996	55	1,114	55	118	0	12%	0%
	SB	773	60	883	62	110	2	14%	3%
Ashley Road diversion (between Birkinheath Lane and Mobberley Road)	EB	376	4	283	3	-93	-1	-25%	-25%
	WB	193	1	132	1	-61	0	-32%	0%
Mobberley Road realignment (between Ashley Road diversion and Back Lane)	NB	391	0	661	3	270	3	69%	0%
	SB	366	1	451	2	85	1	23%	100%
	EB	287	3	225	2	-62	-1	-22%	-33%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Mill Lane/Castle Mill Lane/Tanyard Lane/Back Lane (between A538 Wilmslow Road and Mobberley Road)	WB	123	1	62	0	-61	-1	-50%	-100%
A538 Wilmslow Road (between Sunbank Lane and Mill Lane)	NB	897	54	1,011	54	114	0	13%	0%
	SB	640	59	814	61	174	2	27%	3%
A538 Wilmslow Road (between Sunbank Lane and Runger Lane)	NB	1,119	64	1,228	66	109	2	10%	3%
	SB	1,229	68	1,423	70	194	2	16%	3%
Runger Lane (between A538 Wilmslow Road and Avro Way)	NB	1,679	19	1,657	24	-22	5	-1%	26%
	SB	568	13	336	14	-232	1	-41%	8%
A538 Wilmslow Road (between Runger Lane and A538 Hale Road)	EB	1,935	57	2,104	54	169	-3	9%	-5%
	WB	1,063	60	1,384	55	321	-5	30%	-8%
A538 Hale Road (between A538 Hale Road/station access gyratory southbound and A538 Hale Road/station access gyratory northbound)	WB	-	-	1,416	26	-	-	-	-
A538 Hale Road/station access gyratory (between Manchester Airport High Speed station access road east and A538 Wilmslow Road)	SB	-	-	1,814	17	-	-	-	-
A538 Hale Road (between High Elm Road and A538 Hale Road/station access gyratory)	EB	-	-	1,456	17	-	-	-	-
	WB	-	-	594	25	-	-	-	-
A538 Hale Road/station access gyratory (between A538 Hale Road and Manchester Airport High Speed station access road west)	NB	-	-	2,320	17	-	-	-	-
	SB	-	-	42	0	-	-	-	-
Chicago Avenue (between World Way and Malaga Avenue)	EB	137	19	182	27	45	8	33%	42%
	WB	701	30	721	40	20	10	3%	33%
Car park access (between Chicago Avenue and Area 2 car park)	EB	319	28	322	36	3	8	1%	29%
	WB	259	33	271	44	12	11	5%	33%
A538 Hale Road/station access gyratory (between Manchester Airport High Speed station access road west and Manchester Airport High Speed station access road east)	EB	-	-	2,267	17	-	-	-	-
	WB	-	-	42	0	-	-	-	-
World Way (between Terminal 2 Roundabout and Chicago Avenue)	NB	1,343	31	1,400	39	57	8	4%	26%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	793	43	864	53	71	10	9%	23%
Runger Lane (between Avro Way and Thorley Lane)	NB	1,207	11	1,219	17	12	6	1%	55%
	SB	437	9	213	10	-224	1	-51%	11%
Elmridge Drive (between A538 Hale Road and High Elm Road)	NB	499	1	575	1	76	0	15%	0%
	SB	26	1	4	0	-22	-1	-85%	-100%
Chapel Lane (between Tithebarn Road and Wicker Lane)	EB	69	1	100	2	31	1	45%	100%
	WB	281	5	184	4	-97	-1	-35%	-20%
Hawley Lane (between Broad Lane and Wicker Lane)	EB	37	1	70	2	33	1	89%	100%
	WB	316	5	199	4	-117	-1	-37%	-20%
Bankhall Lane (between Arthog Road and Broad Lane)	EB	53	1	71	2	18	1	34%	100%
	WB	271	5	186	4	-85	-1	-31%	-20%
Enterprise Way (between Thorley Lane and Terminal 2 Roundabout)	NB	1,088	13	1,056	21	-32	8	-3%	62%
	SB	607	6	618	17	11	11	2%	183%
Thorley Lane (between Sydney Avenue and Jet Parks 1)	NB	884	16	831	22	-53	6	-6%	38%
	SB	259	4	268	14	9	10	3%	250%
Thorley Lane (between Etrop Grange Hotel access and Bailey Lane)	EB	748	18	742	25	-6	7	-1%	39%
	WB	323	4	361	13	38	9	12%	225%
B5162 Park Road (between Arthog Road and B5357 Ashley Road)	EB	419	3	451	3	32	0	8%	0%
	WB	350	6	408	5	58	-1	17%	-17%
Thorley Lane (between Runger Lane and Sydney Avenue)	EB	1,560	19	1,276	24	-284	5	-18%	26%
	WB	509	9	319	19	-190	10	-37%	111%
Thorley Lane (between Shay Lane and Runger Lane)	EB	254	2	260	12	6	10	2%	500%
	WB	294	3	296	13	2	10	1%	333%
Shay Lane (between Thorley Lane and Ash Lane)	EB	25	1	52	3	27	2	108%	200%
	WB	131	0	135	0	4	0	3%	0%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
B5162 Park Road (between Arthog Road and A538 Hale Road)	EB	577	5	595	5	18	0	3%	0%
	WB	201	2	286	2	85	0	42%	0%
Ash Lane (between Shay Lane and Clay Lane)	NB	130	2	164	3	34	1	26%	50%
	SB	51	4	113	4	62	0	122%	0%
B5163 Victoria Road (between B5163 Broomfield Lane and B5163 Ashley Road)	NB	110	1	116	1	6	0	5%	0%
	SB	160	1	121	1	-39	0	-24%	0%
Victoria Road (between A538 Hale Road and B5163 Broomfield Lane)	NB	78	1	79	1	1	0	1%	0%
	SB	87	0	53	0	-34	0	-39%	0%
Grove Lane (between Wellfield Lane and Ash Lane)	EB	439	13	604	15	165	2	38%	15%
	WB	332	7	324	7	-8	0	-2%	0%
Grove Lane (between A5144 Delahays Road and Wellfield Lane)	EB	392	13	504	15	112	2	29%	15%
	WB	332	7	324	7	-8	0	-2%	0%
Clay Lane (between Grove Lane and Whitecarr Lane)	EB	531	10	710	12	179	2	34%	20%
	WB	345	5	379	6	34	1	10%	20%
Green Lane (between Wood Lane and A5144 Thorley Lane)	NB	114	1	98	1	-16	0	-14%	0%
	SB	103	3	89	3	-14	0	-14%	0%
B5165 Thorley Lane (between Granville Road and B5165 Stockport Road)	NB	234	5	277	5	43	0	18%	0%
	SB	224	7	227	7	3	0	1%	0%

Table 18-254: MA06 impacted links, 2038 PM peak

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Ashley Road (between Rostherne Lane and A5034 Mereside Road)	NB	160	3	78	1	-82	-2	-51%	-67%
	SB	237	3	197	3	-40	0	-17%	0%
Mobberley Road (between Breach House Lane and Ashley Road diversion)	NB	435	1	465	1	30	0	7%	0%
	SB	348	0	351	0	3	0	1%	0%
Ashley Road (between Birkinheath Lane and Rostherne Lane)	EB	225	4	141	2	-84	-2	-37%	-50%
	WB	277	1	203	0	-74	-1	-27%	-100%
B5166 Hollin Lane (between Altrincham Road and Station Road)	NB	84	1	125	1	41	0	49%	0%
	SB	704	7	763	8	59	1	8%	14%
B5166 Hollin Lane (between Holly Lane and Altrincham Road)	NB	84	1	125	1	41	0	49%	0%
	SB	704	7	763	8	59	1	8%	14%
Ashley Road diversion (between Birkinheath Lane and Mobberley Road)	EB	225	4	141	2	-84	-2	-37%	-50%
	WB	302	1	230	0	-72	-1	-24%	-100%
Mobberley Road realignment (between Ashley Road diversion and Back Lane)	NB	435	1	542	2	107	1	25%	100%
	SB	348	0	517	0	169	0	49%	0%
Mill Lane/Castle Mill Lane/Tanyard Lane/Back Lane (between A538 Wilmslow Road and Mobberley Road)	EB	67	2	69	1	2	-1	3%	-50%
	WB	211	0	156	0	-55	0	-26%	0%
B5166 Hollin Lane (between Moss Lane and Holly Lane)	NB	84	1	125	1	41	0	49%	0%
	SB	704	7	763	8	59	1	8%	14%
Chapel Lane/Sunbank Lane (between Greengate and A538 Wilmslow Road)	NB	479	3	481	5	2	2	0%	67%
	SB	246	3	248	3	2	0	1%	0%
Runger Lane (between A538 Wilmslow Road and Avro Way)	NB	596	10	1,034	11	438	1	73%	10%
	SB	1,072	18	855	20	-217	2	-20%	11%
A538 Wilmslow Road (between Runger Lane and A538 Hale Road)	EB	1,143	22	1,898	22	755	0	66%	0%
	WB	1,241	18	1,521	20	280	2	23%	11%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A538 Hale Road/station access gyratory (between Manchester Airport High Speed station access road east and A538 Wilmslow Road)	WB	-	-	1,216	8	-	-	-	-
A538 Hale Road/station access gyratory (between Manchester Airport High Speed station access road east and A538 Wilmslow Road)	SB	-	-	1,858	1	-	-	-	-
A538 Hale Road (between High Elm Road and A538 Hale Road/station access gyratory)	EB	-	-	797	1	-	-	-	-
	WB	-	-	753	8	-	-	-	-
A538 Hale Road/station access gyratory (between A538 Hale Road and Manchester Airport High Speed station access road west)	NB	-	-	1,289	1	-	-	-	-
	SB	-	-	30	0	-	-	-	-
Chicago Avenue (between World Way and Malaga Avenue)	EB	296	17	343	28	47	11	16%	65%
	WB	841	26	848	40	7	14	1%	54%
Car park access (between Chicago Avenue and Area 2 car park)	EB	236	25	243	36	7	11	3%	44%
	WB	251	28	263	40	12	12	5%	43%
A538 Hale Road/station access gyratory (between Manchester Airport High Speed station access road west and Manchester Airport High Speed station access road east)	EB	-	-	1,289	1	-	-	-	-
	WB	-	-	30	0	-	-	-	-
A538 Hale Road (between Elmridge Drive and High Elm Road)	EB	685	3	526	2	-159	-1	-23%	-33%
	WB	548	5	571	5	23	0	4%	0%
World Way (between Terminal 2 Roundabout and Chicago Avenue)	NB	1,465	24	1,668	34	203	10	14%	42%
	SB	1,359	39	1,358	50	-1	11	0%	28%
Runger Lane (between Avro Way and Thorley Lane)	NB	479	6	895	7	416	1	87%	17%
	SB	769	14	536	16	-233	2	-30%	14%
A538 Hale Road (between Tithebarn Road and Elmridge Drive)	EB	619	3	502	2	-117	-1	-19%	-33%
	WB	473	5	468	5	-5	0	-1%	0%
Enterprise Way (between Thorley Lane and Terminal 2 Roundabout)	NB	616	15	614	26	-2	11	0%	73%
	SB	539	5	539	17	0	12	0%	240%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Palma Avenue (between Sydney Avenue and World Way)	EB	949	4	1,178	4	229	0	24%	0%
	WB	138	0	135	3	-3	3	-2%	0%
Thorley Lane (between Sydney Avenue and Jet Parks 1)	NB	658	6	701	17	43	11	7%	183%
	SB	842	5	855	17	13	12	2%	240%
Thorley Lane (between Etrop Grange Hotel access and Bailey Lane)	EB	779	7	843	18	64	11	8%	157%
	WB	584	6	618	17	34	11	6%	183%
Ashley Road (between Bankhall Lane and B6162 Park Road)	NB	294	4	328	4	34	0	12%	0%
	SB	157	0	207	0	50	0	32%	0%
Thorley Lane (between Runger Lane and Sydney Avenue)	EB	783	9	841	21	58	12	7%	133%
	WB	760	15	561	27	-199	12	-26%	80%
Thorley Lane (between Shay Lane and Runger Lane)	EB	204	2	197	14	-7	12	-3%	600%
	WB	457	0	489	11	32	11	7%	0%
B5357 Ashley Road (between Harrop Road and B5162 Park Road)	NB	248	0	249	0	1	0	0%	0%
	SB	580	2	486	2	-94	0	-16%	0%
Shay Lane (between Thorley Lane and Ash Lane)	EB	5	0	5	0	0	0	0%	0%
	WB	152	1	183	0	31	-1	20%	-100%
B5161 Langham Road (between South Downs Road and B5163 Ashley Road)	EB	4	4	4	4	0	0	0%	0%
	WB	117	4	138	4	21	0	18%	0%
B5357 Ashley Road (between B5163 Victoria Road and Leigh Road)	NB	358	0	358	0	0	0	0%	0%
	SB	526	1	422	1	-104	0	-20%	0%
B5163 Victoria Road (between B5163 Broomfield Lane and B5163 Ashley Road)	NB	77	0	76	0	-1	0	-1%	0%
	SB	444	1	381	1	-63	0	-14%	0%
Victoria Road (between A538 Hale Road and B5163 Broomfield Lane)	NB	77	0	76	0	-1	0	-1%	0%
	SB	287	0	221	0	-66	0	-23%	0%
Grove Lane (between Wellfield Lane and Ash Lane)	EB	254	4	328	4	74	0	29%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	411	4	413	4	2	0	0%	0%
Grove Lane (between A5144 Delahays Road and Wellfield Lane)	EB	253	4	327	4	74	0	29%	0%
	WB	403	4	405	4	2	0	0%	0%
Clay Lane (between Grove Lane and Whitecarr Lane)	EB	355	4	436	4	81	0	23%	0%
	WB	487	3	495	3	8	0	2%	0%
A538 Lloyd Street (between Stamford Park Road and A538 Ashley Road)	EB	348	0	308	0	-40	0	-11%	0%
	WB	160	0	139	0	-21	0	-13%	0%

Table 18-255: MA06 impacted links, 2046 PM peak

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Ashley Road (between Rostherne Lane and A5034 Mereside Road)	NB	190	3	92	1	-98	-2	-52%	-67%
	SB	246	3	251	3	5	0	2%	0%
Mobberley Road (between Breach House Lane and Ashley Road diversion)	NB	478	1	530	1	52	0	11%	0%
	SB	354	0	350	0	-4	0	-1%	0%
Ashley Road (between Birkinheath Lane and Rostherne Lane)	EB	263	4	163	2	-100	-2	-38%	-50%
	WB	285	1	254	0	-31	-1	-11%	-100%
Ashley Road diversion (between Birkinheath Lane and Mobberley Road)	EB	263	4	163	2	-100	-2	-38%	-50%
	WB	317	1	291	0	-26	-1	-8%	-100%
Mobberley Road realignment (between Ashley Road diversion and Back Lane)	NB	478	1	612	3	134	2	28%	200%
	SB	354	0	560	0	206	0	58%	0%
	NB	540	3	542	5	2	2	0%	67%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Chapel Lane/Sunbank Lane (between Greengate and A538 Wilmslow Road)	SB	257	3	258	3	1	0	0%	0%
A538 Wilmslow Road (between Runger Lane and A538 Hale Road)	EB	1,339	27	1,999	25	660	-2	49%	-7%
	WB	1,410	20	1,625	22	215	2	15%	10%
A538 Hale Road (between A538 Hale Road/station access gyratory southbound and A538 Hale Road/station access gyratory northbound)	WB	-	-	1,304	8	-	-	-	-
A538 Hale Road/station access gyratory (between Manchester Airport High Speed station access road east and A538 Wilmslow Road)	SB	-	-	1,873	2	-	-	-	-
Terminal Road North (between Malaga Avenue and Outwood Lane)	EB	82	4	228	4	146	0	178%	0%
	WB	10	10	10	10	0	0	0%	0%
Malaga Avenue (between Chicago Avenue and Terminal Road North)	NB	696	8	811	11	115	3	17%	38%
	SB	209	1	331	1	122	0	58%	0%
A538 Hale Road (between High Elm Road and A538 Hale Road/station access gyratory)	EB	-	-	821	2	-	-	-	-
	WB	-	-	822	8	-	-	-	-
A538 Hale Road/station access gyratory (between A538 Hale Road and Manchester Airport High Speed station access road west)	NB	-	-	1,332	2	-	-	-	-
	SB	-	-	29	0	-	-	-	-
Chicago Avenue (between World Way and Malaga Avenue)	EB	385	16	309	25	-76	9	-20%	56%
	WB	862	25	812	39	-50	14	-6%	56%
Car park access (between Chicago Avenue and Area 2 car park)	EB	247	24	260	34	13	10	5%	42%
	WB	275	28	287	39	12	11	4%	39%
A538 Hale Road/station access gyratory (between Manchester Airport High Speed station access road west and Manchester Airport High Speed station access road east)	EB	-	-	1,333	2	-	-	-	-
	WB	-	-	30	0	-	-	-	-
Outwood Lane (between Terminal Road North and A555 Ringway Road West)	NB	1,131	12	1,252	9	121	-3	11%	-25%
	SB	569	11	697	11	128	0	22%	0%
A538 Hale Road (between Elmridge Drive and High Elm Road)	EB	693	4	540	2	-153	-2	-22%	-50%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	594	5	614	5	20	0	3%	0%
World Way (between Terminal 2 Roundabout and Chicago Avenue)	NB	1,763	23	1,796	32	33	9	2%	39%
	SB	1,464	37	1,409	48	-55	11	-4%	30%
Runger Lane (between Avro Way and Thorley Lane)	NB	402	6	936	8	534	2	133%	33%
	SB	967	14	688	16	-279	2	-29%	14%
A538 Hale Road (between Tithebarn Road and Elmridge Drive)	EB	605	4	499	2	-106	-2	-18%	-50%
	WB	506	5	499	5	-7	0	-1%	0%
Enterprise Way (between Thorley Lane and Terminal 2 Roundabout)	NB	466	12	517	24	51	12	11%	100%
	SB	518	5	562	17	44	12	8%	240%
Palma Avenue (between Sydney Avenue and World Way)	EB	1,259	5	1,441	4	182	-1	14%	-20%
	WB	120	0	164	3	44	3	37%	0%
Arthog Road (between Bankhall Lane and B5162 Park Road)	EB	209	1	163	1	-46	0	-22%	0%
	WB	118	2	113	3	-5	1	-4%	50%
Thorley Lane (between Sydney Avenue and Jet Parks 1)	NB	585	9	658	17	73	8	12%	89%
	SB	1,195	6	1,165	17	-30	11	-3%	183%
Thorley Lane (between Etrop Grange Hotel access and Bailey Lane)	EB	687	9	760	18	73	9	11%	100%
	WB	806	6	776	17	-30	11	-4%	183%
Ashley Road (between Bankhall Lane and B6162 Park Road)	NB	359	4	383	4	24	0	7%	0%
	SB	153	0	194	0	41	0	27%	0%
Thorley Lane (between Runger Lane and Sydney Avenue)	EB	865	12	844	20	-21	8	-2%	67%
	WB	929	14	672	26	-257	12	-28%	86%
Thorley Lane (between Shay Lane and Runger Lane)	EB	206	2	196	12	-10	10	-5%	500%
	WB	457	0	500	10	43	10	9%	0%
B5357 Ashley Road (between Harrop Road and B5162 Park Road)	NB	272	0	269	0	-3	0	-1%	0%
	SB	660	2	565	2	-95	0	-14%	0%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Shay Lane (between Thorley Lane and Ash Lane)	EB	5	0	5	0	0	0	0%	0%
	WB	170	1	204	1	34	0	20%	0%
B5161 Langham Road (between South Downs Road and B5163 Ashley Road)	EB	4	4	4	4	0	0	0%	0%
	WB	113	4	127	4	14	0	12%	0%
B5163 Victoria Road (between B5163 Broomfield Lane and B5163 Ashley Road)	NB	89	0	87	0	-2	0	-2%	0%
	SB	445	1	392	1	-53	0	-12%	0%
Victoria Road (between A538 Hale Road and B5163 Broomfield Lane)	NB	89	0	87	0	-2	0	-2%	0%
	SB	303	0	248	0	-55	0	-18%	0%
Ashfield Road (between Stamford Park Road and A538 Hale Road)	SB	170	0	188	0	18	0	11%	0%
A538 Manor Road (between Hamon Road and A538 Lloyd Street)	NB	263	0	275	0	12	0	5%	0%
	SB	47	0	73	0	26	0	55%	0%
Green Lane (between Wood Lane and A5144 Thorley Lane)	NB	179	0	222	0	43	0	24%	0%
	SB	16	0	14	0	-2	0	-13%	0%
Wood Lane (between Green Lane and A5144 Thorley Lane)	EB	251	3	309	3	58	0	23%	0%
	WB	223	2	230	3	7	1	3%	50%
Baltic Road (between Atlantic Street and George Richards Way)	NB	50	1	54	1	4	0	8%	0%
	SB	28	0	47	0	19	0	68%	0%
Dairyhouse Lane (between Sinderland Road and George Richards Way)	NB	50	1	54	1	4	0	8%	0%
	SB	28	0	47	0	19	0	68%	0%
Sinderland Road (between Craven Road and Barlow Road)	EB	197	1	197	1	0	0	0%	0%
	WB	125	0	161	0	36	0	29%	0%

Figure 18-80: MA06 traffic flow changes, 2038 AM peak

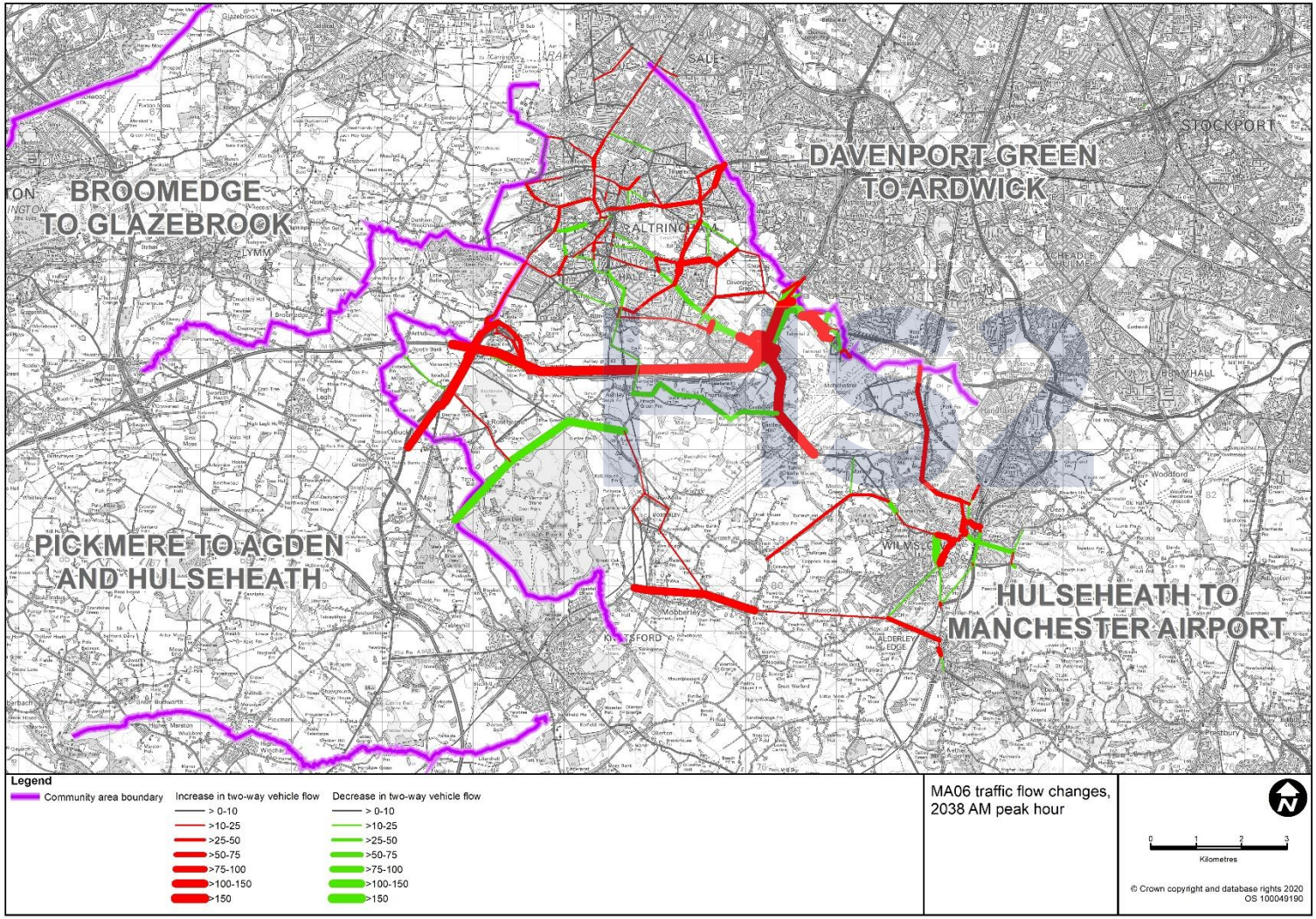


Figure 18-81: MA06 traffic flow changes, 2038 PM peak hour

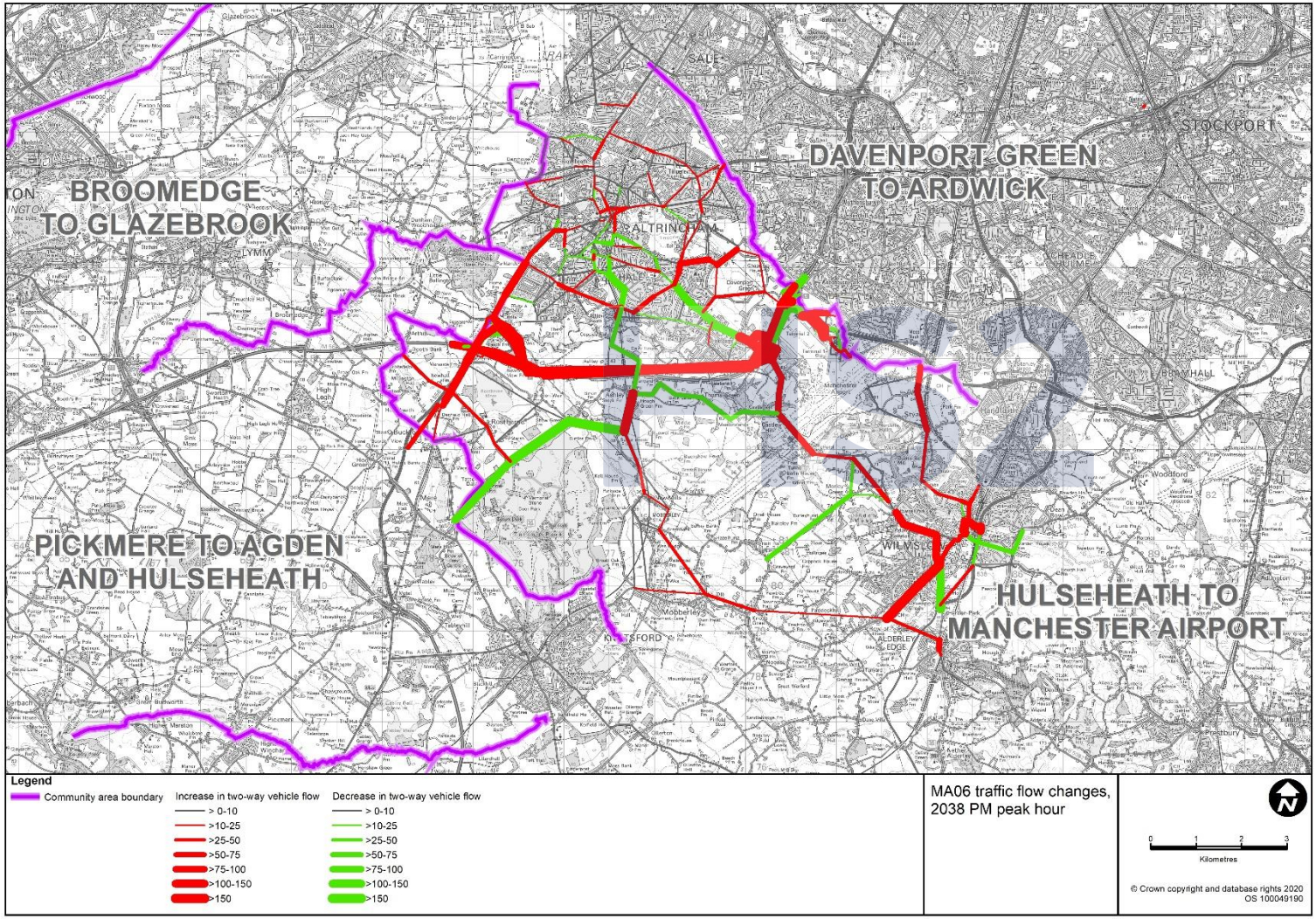


Figure 18-82: MA06 traffic flow changes, 2046 AM peak

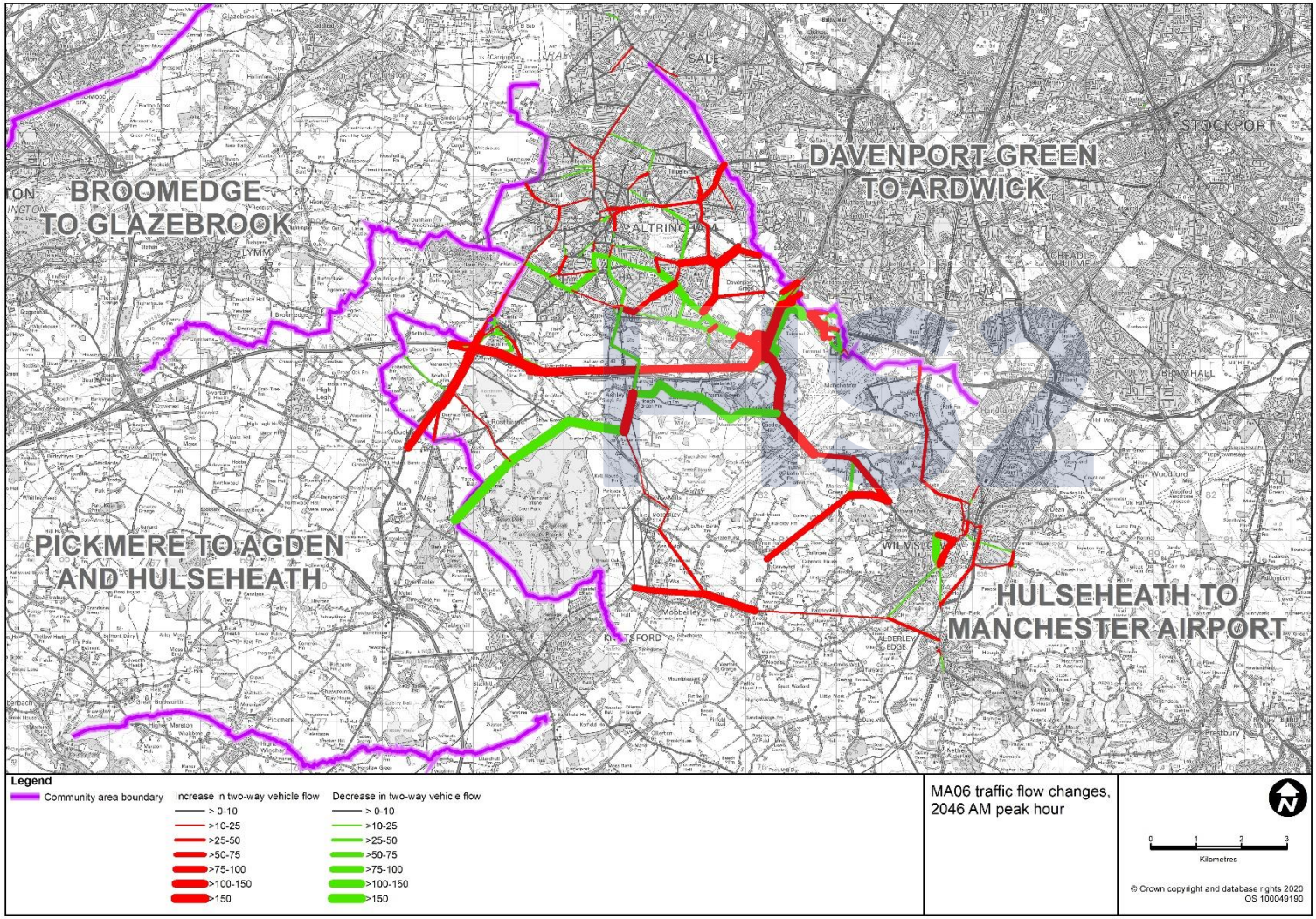
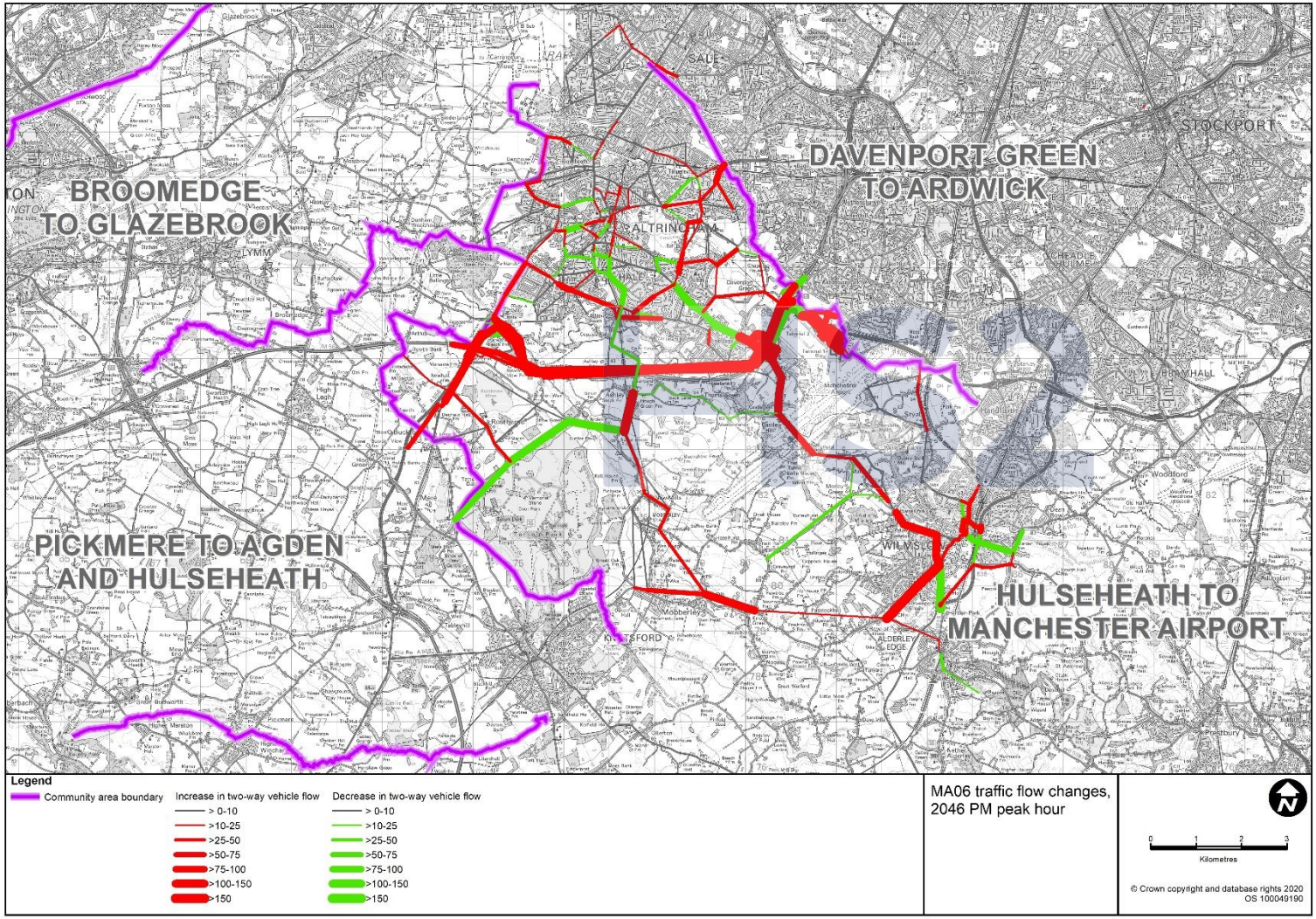


Figure 18-83: MA06 traffic flow changes, 2046 PM peak



MA07

18.5.103 The Greater Manchester SATURN Model and the Greater Manchester Public Transport Model have been used to model the operation scenarios in the MA07 area.

18.5.104 Table 18-256 and Table 18-257 set out the traffic flows on highway links affected by operation of the Proposed Scheme for the weekday AM peak hour (08:00–09:00) for 2038 and 2046 respectively. Table 18-258 and Table 18-259 cover the weekday PM peak hour (17:00–18:00) for 2038 and 2046 respectively. Due to the simplified way in which the road network is represented in the strategic models, the use of some local roads may not be precisely reflected in the forecast traffic flows during operation of the Proposed Scheme, however, this is not expected to change the conclusions of the assessment.

18.5.105 Traffic flows on all other links are either unaffected from the future baseline or result in only small changes.

18.5.106 Traffic flow changes are shown in Figure 18-84, Figure 18-85, Figure 18-86 and Figure 18-87 for the AM and PM peak hours respectively for both 2038 and 2046. The width of the band indicates the proportional change in traffic, with red representing an increase and green a decrease compared with the 2038 and 2046 future baseline scenario. Flow changes are the combination of changes in passenger demand and reassigned baseline traffic.

Table 18-256: MA07 impacted links, 2038 AM peak

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Simonsway (between Greenbrow Road and Firbank Road)	EB	857	13	877	22	20	9	2%	69%
	WB	133	9	146	9	13	0	10%	0%
Tuffley Road (between Firbank Road and Greenbrow Road)	EB	817	10	841	19	24	9	3%	90%
	WB	111	6	127	6	16	0	14%	0%
Floats Road/Clay Lane/Barnacre Avenue/Newall Road (between Dobbinetts Lane and Whitecarr Lane)	NB	179	2	143	3	-36	1	-20%	50%
	SB	139	0	90	0	-49	0	-35%	0%
Greenbrow Road (between Wastdale Road and Tuffley Road)	NB	120	14	135	13	15	-1	13%	-7%
	SB	611	12	658	20	47	8	8%	67%
Greenbrow Road (between Wastdale Road and Firbank Road)	NB	213	15	228	14	15	-1	7%	-7%
	SB	378	13	431	13	53	0	14%	0%
Southmoor Road (between Floats Road and Wythenshawe Hospital Visitor Car Park)	EB	348	12	406	13	58	1	17%	8%
	WB	168	12	170	12	2	0	1%	0%
Firbank Road (between Highdales Road and Greenbrow Road)	EB	12	0	15	0	3	0	25%	0%
	WB	89	0	103	1	14	1	16%	0%
Greenbrow Road (between Firbank Road and Hollyhedge Road)	NB	201	15	213	14	12	-1	6%	-7%
	SB	289	12	328	12	39	0	13%	0%
Birch Lane (between A6010 Dickenson Road and A6 Stockport Road)	NB	66	0	68	0	2	0	3%	0%
	SB	49	1	66	1	17	0	35%	0%
Whitwell Way (between Garratt Way and A57 Hyde Road)	NB	57	10	70	10	13	0	23%	0%
	SB	298	18	388	17	90	-1	30%	-6%
Garratt Way (between Whitewell Way and Wellington Street)	EB	284	21	316	20	32	-1	11%	-5%
	WB	298	18	388	17	90	-1	30%	-6%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Highmead Street (between Chapman Street and High Bank)	EB	320	3	277	2	-43	-1	-13%	-33%
	WB	34	0	23	0	-11	0	-32%	0%
Belle Vue Street (between A57 Hyde Road and Birch Street)	NB	32	0	13	1	-19	1	-59%	0%
	SB	140	7	221	16	81	9	58%	129%
Birch Street (between A57 Hyde Road and Belle Vue Street)	NB	38	0	85	0	47	0	124%	0%
	SB	42	0	49	0	7	0	17%	0%
Chapman Street (between Highmead Street and Railway Street)	NB	302	9	311	9	9	0	3%	0%
	SB	618	26	708	24	90	-2	15%	-8%
Corporation Road (between Stamford Road and Maytree Crescent)	NB	717	12	711	12	-6	0	-1%	0%
	SB	321	12	349	19	28	7	9%	58%
Belle Vue Street (between Birch Street and Gorton Lane)	NB	70	1	98	1	28	0	40%	0%
	SB	182	7	270	17	88	10	48%	143%
Cornwall Street (between Railway Street and Ogden Lane)	NB	302	9	311	9	9	0	3%	0%
	SB	618	26	708	24	90	-2	15%	-8%
A665 Devonshire Street North (between Higher Ardwick and A57 Hyde Road)	NB	811	17	786	13	-25	-4	-3%	-24%
	SB	666	20	637	15	-29	-5	-4%	-25%
Press Street/Whitworth Street East (between Widnes Street and Lawton Street)	SB	173	15	220	14	47	-1	27%	-7%
Higher Ardwick (between Union Street and A665 Chancellor Lane)	EB	279	4	292	16	13	12	5%	300%
	WB	391	1	426	7	35	6	9%	600%
A635 Ashton Old Road (between Greenside Street and Dakley Street)	EB	778	29	885	36	107	7	14%	24%
	WB	1,452	54	1,377	66	-75	12	-5%	22%
B6390 Audenshaw Road (between Stamford Road and A6140 Moss Way)	NB	365	9	376	18	11	9	3%	100%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	319	14	286	22	-33	8	-10%	57%
A635 Ashton Old Road (between A6010 Pottery Lane and Greenside Street)	EB	716	24	812	32	96	8	13%	33%
	WB	1,449	51	1,374	63	-75	12	-5%	24%
Sunny Lowry Road (between A6010 Alan Turing Way and Grey Mare Lane)	NB	492	15	535	16	43	1	9%	7%
	SB	129	4	159	8	30	4	23%	100%
A6017 Stockport Road (between Howe Street and Birch Street)	EB	180	19	191	27	11	8	6%	42%
	WB	156	18	165	18	9	0	6%	0%
	EB	161	4	220	4	59	0	37%	0%
Wilson Street (between Ridings Street and Clayton Lane)	WB	597	8	621	6	24	-2	4%	-25%
	NB	258	17	263	18	5	1	2%	6%
A6140 Moss Way (between M60 junction 23 eastbound off-slip and M60 junction 23 westbound on-slip)	SB	637	28	642	37	5	9	1%	32%
	NB	227	15	325	17	98	2	43%	13%
Grey Mare Lane (between Sunny Lowry Road and Albert Street)	SB	326	4	389	8	63	4	19%	100%
	NB	148	4	202	4	54	0	36%	0%
Clayton Lane (between Cycle Street and Greenside Street)	SB	442	4	474	4	32	0	7%	0%
	NB	180	19	191	27	11	8	6%	42%
A6017 Stockport Road (between Birch Street and Hamilton Street)	SB	156	18	165	18	9	0	6%	0%
	EB	56	1	54	5	-2	4	-4%	400%
Albert Street (between Darley Street and Grey Mare Lane)	WB	158	3	204	4	46	1	29%	33%
	NB	102	19	108	27	6	8	6%	42%
A6017 Stockport Road (between Cecil Walk and Hamilton Street)	SB	156	18	165	18	9	0	6%	0%
	EB	27	1	20	5	-7	4	-26%	400%
Albert Street (between Councillor Street and Darley Street)	WB	67	3	98	4	31	1	46%	33%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	EB	63	0	77	4	14	4	22%	0%
Palmerston Street (between Councillor Street and Gurney Street)	WB	135	8	191	8	56	0	41%	0%
	NB	71	14	123	15	52	1	73%	7%
Grey Mare Lane (between Albert Street and A662 Ashton New Road)	SB	273	6	338	6	65	0	24%	0%
	NB	91	0	106	0	15	0	16%	0%
Darley Street (between Albert Street and A662 Ashton New Road)	SB	29	0	35	0	6	0	21%	0%
	NB	170	7	228	7	58	0	34%	0%
Clayton Lane (between Greenside Street and Oldfield Street)	SB	491	9	531	8	40	-1	8%	-11%
	NB	38	1	60	1	22	0	58%	0%
Councillor Street (between Palmerston Street and A662 Ashton New Road)	SB	70	7	95	6	25	-1	36%	-14%
	NB	170	7	228	7	58	0	34%	0%
Clayton Lane (between Oldfield Street and A662 Ashton New Road)	SB	491	9	531	8	40	-1	8%	-11%
	NB	36	1	63	2	27	1	75%	100%
Clayton Street (between A662 Ashton New Road and North Road)	SB	116	1	130	1	14	0	12%	0%
	NB	124	25	130	33	6	8	5%	32%
Margaret Street (between A635 Manchester Road and Cotton Street West)	SB	182	30	172	31	-10	1	-5%	3%
Richmond Street/Cotton Street West (between Margaret Street and Katherine Street)	NB	135	25	142	33	7	8	5%	32%
Katherine Street (between Margaret Street and Richmond Street)	EB	229	31	226	39	-3	8	-1%	26%
Katherine Street (between Margaret Street and A627 Cavendish Street)	EB	71	24	78	32	7	8	10%	33%
	WB	35	24	35	24	0	0	0%	0%
Katherine Street (between A627 Cavendish Street and A627 Oldham Road)	EB	54	40	62	48	8	8	15%	20%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	274	24	280	24	6	0	2%	0%
Bradford Road (between A6010 Alan Turing Way and Varley Street)	EB	224	15	205	15	-19	0	-8%	0%
	WB	838	21	733	19	-105	-2	-13%	-10%

Table 18-257: MA07 impacted links, 2046 AM peak

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Portway (between Cornish Way and Ruddpark Road)	EB	442	11	451	11	9	0	2%	0%
	WB	422	8	425	14	3	6	1%	75%
Portway (between Simonsway and Selstead Road)	EB	36	4	40	4	4	0	11%	0%
	WB	55	4	79	3	24	-1	44%	-25%
Greenbrow Road (between Hucklow Avenue and Newall Road)	EB	170	17	212	17	42	0	25%	0%
	WB	967	22	800	28	-167	6	-17%	27%
Greenbrow Road (between Simonsway and Hucklow Avenue)	NB	117	49	136	16	19	-33	16%	-67%
	SB	868	36	704	41	-164	5	-19%	14%
Newall Road (between Greenbrow Road and Whitecarr Lane)	EB	599	17	572	18	-27	1	-5%	6%
	WB	1,117	15	993	21	-124	6	-11%	40%
Whitecarr Lane (between Newall Road and Roaring Gate Lane)	EB	487	18	554	18	67	0	14%	0%
	WB	974	14	931	20	-43	6	-4%	43%
Simonsway (between Greenbrow Road and Firbank Road)	EB	884	14	893	47	9	33	1%	236%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	119	9	180	9	61	0	51%	0%
Tuffley Road (between Firbank Road and Greenbrow Road)	EB	798	11	844	44	46	33	6%	300%
	WB	98	6	157	6	59	0	60%	0%
Greenwood Road (between Simonsway and Gladeside Road)	NB	76	2	74	2	-2	0	-3%	0%
	SB	146	8	267	8	121	0	83%	0%
Greenbrow Road (between Wastdale Road and Tuffley Road)	NB	106	14	164	13	58	-1	55%	-7%
	SB	540	12	707	44	167	32	31%	267%
Greenwood Road (between Gladeside Road and Hollyhedge Road Road)	NB	258	10	283	10	25	0	10%	0%
	SB	312	16	436	16	124	0	40%	0%
Greenbrow Road (between Wastdale Road and Firbank Road)	NB	204	14	260	14	56	0	27%	0%
	SB	353	14	486	14	133	0	38%	0%
Southmoor Road (between Floats Road and Wythenshawe Hospital Visitor Car Park)	EB	388	12	502	13	114	1	29%	8%
	WB	179	12	174	13	-5	1	-3%	8%
Highdales Road (between Hollyhedge Road and Firbank Road)	NB	27	3	36	3	9	0	33%	0%
	SB	156	5	169	4	13	-1	8%	-20%
Firbank Road (between Highdales Road and Greenbrow Road)	EB	6	0	13	0	7	0	117%	0%
	WB	70	2	120	2	50	0	71%	0%
Southmoor Road (between Wythenshawe Hospital Car Parking and Hollyhedge Road)	EB	330	17	438	18	108	1	33%	6%
	WB	552	18	541	18	-11	0	-2%	0%
Floats Road (between Southmoor Road and Ledson Road)	NB	343	12	267	13	-76	1	-22%	8%
	SB	179	15	184	15	5	0	3%	0%
Greenbrow Road (between Firbank Road and Hollyhedge Road)	NB	198	14	246	14	48	0	24%	0%
	SB	283	12	366	12	83	0	29%	0%
Hollyhedge Road (between Southmoor Road and Marden Road)	EB	540	23	673	24	133	1	25%	4%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	787	19	855	20	68	1	9%	5%
Greenwood Road (between Hollyhedge Road and Benchill Road)	NB	230	14	262	15	32	1	14%	7%
	SB	407	8	496	8	89	0	22%	0%
Hollyhedge Road (between Marden Road and Greenbrow Road)	EB	543	25	676	27	133	2	24%	8%
	WB	782	22	850	23	68	1	9%	5%
Southmoor Road (between Ledson Road and Hollyhedge Road)	NB	337	9	416	9	79	0	23%	0%
	SB	312	12	338	13	26	1	8%	8%
Ledson Road (between Floats Road and Southmoor Road)	EB	155	14	160	14	5	0	3%	0%
	WB	365	15	448	15	83	0	23%	0%
Greenwood Road (between Benchill Road and Royalthorn Road)	NB	235	19	296	20	61	1	26%	5%
	SB	412	12	501	13	89	1	22%	8%
Greenwood Road (between Royalthorn Road and A560 Altrincham Road)	EB	487	20	514	20	27	0	6%	0%
	WB	475	16	565	16	90	0	19%	0%
Longley Lane (between Moor End and Beech Avenue)	EB	386	28	345	26	-41	-2	-11%	-7%
	WB	337	51	298	50	-39	-1	-12%	-2%
Moor End (between Longley Lane and B5167 Palatine Road)	SB	386	28	345	26	-41	-2	-11%	-7%
Longley Lane (between Moor End and B5167 Palatine Road)	WB	337	51	298	50	-39	-1	-12%	-2%
B5166 Church Road (between Patterdale Road and B5167 Palatine Road)	EB	10	10	10	10	0	0	0%	0%
	WB	171	10	230	10	59	0	35%	0%
Platt Lane (between Hart Road and Lloyd Street South)	EB	409	5	420	5	11	0	3%	0%
	WB	98	4	139	4	41	0	42%	0%
Lloyd Street South (between Platt Lane and Hart Road)	NB	182	3	218	1	36	-2	20%	-67%
	SB	1	1	1	1	0	0	0%	0%
Lloyd Street South (between Garswood Road and Thornton Road)	NB	182	3	218	1	36	-2	20%	-67%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	1	1	1	1	0	0	0%	0%
Birch Lane (between A6010 Dickenson Road and A6 Stockport Road)	NB	75	0	78	0	3	0	4%	0%
	SB	52	2	64	1	12	-1	23%	-50%
Whitwell Way (between Garratt Way and A57 Hyde Road)	NB	56	10	67	10	11	0	20%	0%
	SB	308	16	445	18	137	2	44%	13%
Thornbury Way/Garratt Way (between A57 Hyde Road and Whitwell Way)	NB	214	10	242	9	28	-1	13%	-10%
Garratt Way (between Whitewell Way and Wellington Street)	EB	270	20	310	19	40	-1	15%	-5%
	WB	308	16	445	18	137	2	44%	13%
Chapman Street (between Cross Lane and Highmead Street)	NB	316	12	395	12	79	0	25%	0%
	SB	435	23	438	22	3	-1	1%	-4%
High Bank (between Cross Lane and Highmead Street)	NB	241	18	181	16	-60	-2	-25%	-11%
	SB	422	10	350	10	-72	0	-17%	0%
Belle Vue Street (between A57 Hyde Road and Birch Street)	NB	26	1	16	1	-10	0	-38%	0%
	SB	157	8	265	15	108	7	69%	88%
Birch Street (between A57 Hyde Road and Belle Vue Street)	NB	84	0	149	1	65	1	77%	0%
	SB	36	0	46	0	10	0	28%	0%
Chapman Street (between Highmead Street and Railway Street)	NB	306	9	306	9	0	0	0%	0%
	SB	639	26	735	25	96	-1	15%	-4%
City Road (between A5014 Chester Road and A5067 Chorlton Road)	EB	225	10	268	10	43	0	19%	0%
	WB	28	5	30	5	2	0	7%	0%
Clowes Street (between A57 Hyde Road and Wenlock Way)	EB	402	5	354	4	-48	-1	-12%	-20%
	WB	55	3	46	3	-9	0	-16%	0%
Belle Vue Street (between Birch Street and Gorton Lane)	NB	110	1	165	1	55	0	50%	0%
	SB	194	8	310	16	116	8	60%	100%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Wenlock Way (between Kniveton Road and A6010 Pottery Lane)	EB	405	8	356	7	-49	-1	-12%	-13%
	WB	91	8	76	8	-15	0	-16%	0%
A665 Devonshire Street North (between Higher Ardwick and A57 Hyde Road)	NB	825	19	790	14	-35	-5	-4%	-26%
	SB	670	20	639	15	-31	-5	-5%	-25%
Press Street/Whitworth Street East (between Widnes Street and Lawton Street)	SB	170	16	220	15	50	-1	29%	-6%
Higher Ardwick (between Union Street and A665 Chancellor Lane)	EB	300	5	308	17	8	12	3%	240%
	WB	395	1	425	7	30	6	8%	600%
B6390 Audenshaw Road (between Kings Road and Stamford Road)	EB	544	13	577	21	33	8	6%	62%
	WB	785	21	743	22	-42	1	-5%	5%
B6390 Audenshaw Road (between Kershaw Lane and Kings Road)	EB	544	13	577	21	33	8	6%	62%
	WB	785	21	743	22	-42	1	-5%	5%
A635 Ashton Old Road (between Greenside Street and Dakley Street)	EB	842	29	946	36	104	7	12%	24%
	WB	1,496	53	1,414	63	-82	10	-5%	19%
B6390 Audenshaw Road (between Stamford Road and A6140 Moss Way)	NB	377	9	389	17	12	8	3%	89%
	SB	376	14	353	14	-23	0	-6%	0%
A635 Ashton Old Road (between A6010 Pottery Lane and Greenside Street)	EB	782	24	873	32	91	8	12%	33%
	WB	1,493	50	1,412	60	-81	10	-5%	20%
Gable Street (between Stainforth Street and A635 Ashton Old Road)	NB	470	11	413	8	-57	-3	-12%	-27%
Sunny Lowry Road (between A6010 Alan Turing Way and Grey Mare Lane)	NB	501	15	568	16	67	1	13%	7%
	SB	135	4	168	8	33	4	24%	100%
A6017 Stockport Road (between Howe Street and Birch Street)	EB	216	20	226	27	10	7	5%	35%
	WB	172	17	172	17	0	0	0%	0%
Wilson Street (between Ridings Street and Clayton Lane)	EB	159	5	231	4	72	-1	45%	-20%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	631	9	658	9	27	0	4%	0%
Grey Mare Lane (between Sunny Lowry Road and Albert Street)	NB	237	15	369	16	132	1	56%	7%
	SB	346	4	432	8	86	4	25%	100%
Clayton Lane (between Cycle Street and Greenside Street)	NB	148	5	206	4	58	-1	39%	-20%
	SB	465	5	500	5	35	0	8%	0%
A6017 Stockport Road (between Birch Street and Hamilton Street)	NB	216	20	226	27	10	7	5%	35%
	SB	172	17	172	17	0	0	0%	0%
Albert Street (between Darley Street and Grey Mare Lane)	EB	62	1	59	5	-3	4	-5%	400%
	WB	160	3	230	2	70	-1	44%	-33%
A6017 Stockport Road (between Cecil Walk and Hamilton Street)	NB	78	19	89	27	11	8	14%	42%
	SB	180	17	185	17	5	0	3%	0%
Albert Street (between Councillor Street and Darley Street)	EB	31	1	25	5	-6	4	-19%	400%
	WB	67	3	120	2	53	-1	79%	-33%
Palmerston Street (between Councillor Street and Gurney Street)	EB	67	0	79	4	12	4	18%	0%
	WB	132	8	202	7	70	-1	53%	-13%
Grey Mare Lane (between Albert Street and A662 Ashton New Road)	NB	79	14	141	16	62	2	78%	14%
	SB	288	6	376	6	88	0	31%	0%
Darley Street (between Albert Street and A662 Ashton New Road)	NB	93	0	110	0	17	0	18%	0%
	SB	31	0	33	0	2	0	6%	0%
Clayton Lane (between Greenside Street and Oldfield Street)	NB	174	8	234	7	60	-1	34%	-13%
	SB	514	9	563	9	49	0	10%	0%
Councillor Street (between Palmerston Street and A662 Ashton New Road)	NB	38	1	56	1	18	0	47%	0%
	SB	67	7	84	7	17	0	25%	0%
Clayton Lane (between Oldfield Street and A662 Ashton New Road)	NB	174	8	234	7	60	-1	34%	-13%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	514	9	563	9	49	0	10%	0%
Clayton Street (between A662 Ashton New Road and North Road)	NB	35	2	66	1	31	-1	89%	-50%
	SB	104	2	119	2	15	0	14%	0%
Bank Street (between A662 Ashton New Road and John Heywood Street)	NB	280	9	296	9	16	0	6%	0%
	SB	148	10	180	9	32	-1	22%	-10%
Margaret Street (between A635 Manchester Road and Cotton Street West)	NB	142	27	154	35	12	8	8%	30%
	SB	202	31	190	34	-12	3	-6%	10%
Bank Street (between John Heywood Street and Ravensbury Street)	NB	358	9	377	9	19	0	5%	0%
	SB	113	10	180	9	67	-1	59%	-10%
Richmond Street/Cotton Street West (between Margaret Street and Katherine Street)	NB	154	27	166	35	12	8	8%	30%
Bank Street (between Ravensbury Street and Tartan Street)	NB	459	8	484	8	25	0	5%	0%
	SB	449	13	527	13	78	0	17%	0%
Katherine Street (between Margaret Street and Richmond Street)	EB	262	34	262	44	0	10	0%	29%
Katherine Street (between Margaret Street and A627 Cavendish Street)	EB	85	26	97	33	12	7	14%	27%
	WB	36	24	36	24	0	0	0%	0%
Katherine Street (between A627 Cavendish Street and A627 Oldham Road)	EB	54	40	62	47	8	7	15%	18%
	WB	304	24	301	24	-3	0	-1%	0%
Bank Street / Bank Bridge Road (between Tartan Street and Riverpark Road)	NB	458	7	483	7	25	0	5%	0%
	SB	452	12	537	12	85	0	19%	0%
Ten Acres Lane (between Briscoe Lane and Riverpark Road)	NB	319	6	333	6	14	0	4%	0%
	SB	398	10	487	9	89	-1	22%	-10%

Table 18-258: MA07 impacted links, 2038 PM peak

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Brownley Road (between Crossacres Road and Simonsway)	NB	285	2	313	2	28	0	10%	0%
	SB	387	3	434	3	47	0	12%	0%
Whitecarr Lane (between Newall Road and Roaring Gate Lane)	EB	588	10	692	10	104	0	18%	0%
	WB	800	5	838	5	38	0	5%	0%
Floats Road/Clay Lane/Barnacre Avenue/Newall Road (between Dobbinetts Lane and Whitecarr Lane)	NB	240	2	227	2	-13	0	-5%	0%
	SB	88	0	0	0	-88	0	-100%	0%
Southmoor Road (between Floats Road and Wythenshawe Hospital Visitor Car Park)	EB	413	14	275	14	-138	0	-33%	0%
	WB	226	15	229	15	3	0	1%	0%
Southmoor Road (between Wythenshawe Hospital Car Parking and Hollyhedge Road)	EB	699	22	558	22	-141	0	-20%	0%
	WB	329	16	327	16	-2	0	-1%	0%
Floats Road (between Southmoor Road and Ledson Road)	NB	287	12	510	12	223	0	78%	0%
	SB	201	12	192	12	-9	0	-4%	0%
Southmoor Road (between Ledson Road and Hollyhedge Road)	NB	255	7	284	7	29	0	11%	0%
	SB	317	11	539	9	222	-2	70%	-18%
Southmoor Road (between Ledson Road and Floatshall Road)	NB	205	17	231	17	26	0	13%	0%
	SB	172	19	363	20	191	1	111%	5%
Southmoor Road (between Floatshall Road and Royal Oak Road)	NB	297	14	320	14	23	0	8%	0%
	SB	372	15	570	16	198	1	53%	7%
Wellington Street/Gorton Lane (between Garratt Way and A6010 Pottery Lane)	EB	222	7	283	7	61	0	27%	0%
	WB	217	10	241	10	24	0	11%	0%
Vine Street (between Abbey Hey Lane and A635 Ashton Old Road)	NB	137	0	175	1	38	1	28%	0%
	SB	80	0	83	0	3	0	4%	0%
Cornwall Street (between Ogden Lane and A635 Ashton Old Road)	NB	266	2	299	2	33	0	12%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A665 Devonshire Street North (between Higher Ardwick and A57 Hyde Road)	NB	886	12	741	8	-145	-4	-16%	-33%
	SB	651	8	542	7	-109	-1	-17%	-13%
Higher Ardwick (between Union Street and A665 Chancellor Lane)	EB	364	3	436	5	72	2	20%	67%
	WB	140	0	239	4	99	4	71%	0%
Gorton Road (between A635 Ashton Old Road and A6010 Pottery Lane)	EB	0	0	18	1	18	1	0%	0%
	WB	79	2	110	0	31	-2	39%	-100%
Victoria Street/Parkhouse Street (between A635 Ashton Old Road and Greenside Street)	EB	132	0	124	0	-8	0	-6%	0%
	WB	26	0	60	1	34	1	131%	0%
Gable Street (between Stainforth Street and A635 Ashton Old Road)	NB	79	2	110	0	31	-2	39%	-100%
Parkhouse Street (between Greenside Street and Cycle Street)	EB	164	0	112	0	-52	0	-32%	0%
	WB	0	0	1	0	1	0	0%	0%
Greenside Street (between Parkhouse Street and Clayton Lane)	NB	43	2	61	3	18	1	42%	50%
	SB	72	3	98	3	26	0	36%	0%
Albert Street (between Councillor Street and Darley Street)	EB	171	1	60	1	-111	0	-65%	0%
	WB	39	2	78	2	39	0	100%	0%
Palmerston Street (between Councillor Street and Gurney Street)	EB	276	0	170	0	-106	0	-38%	0%
	WB	362	4	365	3	3	-1	1%	-25%
Grey Mare Lane (between Albert Street and A662 Ashton New Road)	NB	77	3	88	3	11	0	14%	0%
	SB	49	4	51	4	2	0	4%	0%
Darley Street (between Albert Street and A662 Ashton New Road)	NB	48	1	116	2	68	1	142%	100%
	SB	100	0	101	0	1	0	1%	0%
	NB	43	1	73	1	30	0	70%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Hallkirk Street/Cambrian Street (between A662 Ashton New Road and Phillips Park Road)	SB	228	2	226	2	-2	0	-1%	0%
Bradford Road (between A6010 Alan Turing Way and Varley Street)	EB	662	18	629	18	-33	0	-5%	0%
	WB	521	10	396	9	-125	-1	-24%	-10%

Table 18-259: MA07 impacted links, 2046 PM peak

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Shadowmoss Road (between Simonsway and Cornishway)	NB	27	4	31	4	4	0	15%	0%
	SB	123	4	139	4	16	0	13%	0%
Rowlandsway (between Simonsway and Poundswick Lane)	NB	80	25	80	25	0	0	0%	0%
	SB	91	21	108	21	17	0	19%	0%
Gladeside Road (between Greenwood Road and Poundswick Lane)	NB	45	3	45	3	0	0	0%	0%
	SB	71	3	113	3	42	0	59%	0%
Floats Road/Clay Lane/Barnacre Avenue/Newall Road (between Dobbinetts Lane and Whitecarr Lane)	NB	252	2	235	2	-17	0	-7%	0%
	SB	45	0	0	0	-45	0	-100%	0%
Greenbrow Road (between Wastdale Road and Tuffley Road)	NB	171	12	172	12	1	0	1%	0%
	SB	350	14	414	14	64	0	18%	0%
Floats Road (between Southmoor Road and Ledson Road)	NB	444	12	526	12	82	0	18%	0%
	SB	209	12	204	11	-5	-1	-2%	-8%
Southmoor Road (between Ledson Road and Hollyhedge Road)	NB	287	8	354	9	67	1	23%	13%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	467	9	585	9	118	0	25%	0%
Ledson Road (between Floats Road and Southmoor Road)	EB	282	15	372	12	90	-3	32%	-20%
	WB	232	12	255	12	23	0	10%	0%
Southmoor Road (between Ledson Road and Floatshall Road)	NB	235	19	279	20	44	1	19%	5%
	SB	365	17	394	20	29	3	8%	18%
A5184 Plymouth Grove (between A6 Stockport Road and Clarence Road)	EB	349	7	399	7	50	0	14%	0%
	WB	246	6	261	6	15	0	6%	0%
A6010 Kirkmanshulme Lane (between New Bank Street and A6010 Pottery Lane)	EB	841	10	866	13	25	3	3%	30%
	WB	693	9	710	12	17	3	2%	33%
High Bank (between Cross Lane and Highmead Street)	NB	122	7	168	7	46	0	38%	0%
	SB	180	7	183	7	3	0	2%	0%
Wellington Street/Gorton Lane (between Garratt Way and A6010 Pottery Lane)	EB	239	7	291	7	52	0	22%	0%
	WB	202	10	240	11	38	1	19%	10%
A6010 Pottery Lane (between A57 Hyde Road and Wenlock Way)	NB	882	6	973	9	91	3	10%	50%
	SB	786	10	851	11	65	1	8%	10%
Vine Street (between Abbey Hey Lane and A635 Ashton Old Road)	NB	117	0	168	0	51	0	44%	0%
	SB	84	0	85	0	1	0	1%	0%
A665 Devonshire Street North (between Higher Ardwick and A57 Hyde Road)	NB	925	14	756	10	-169	-4	-18%	-29%
	SB	695	8	575	7	-120	-1	-17%	-13%
Higher Ardwick (between Union Street and A665 Chancellor Lane)	EB	359	3	437	5	78	2	22%	67%
	WB	167	2	261	5	94	3	56%	150%
Gorton Road (between A635 Ashton Old Road and A6010 Pottery Lane)	EB	1	1	27	1	26	0	2600%	0%
	WB	86	2	174	0	88	-2	102%	-100%
	EB	141	0	184	0	43	0	30%	0%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Victoria Street/Parkhouse Street (between A635 Ashton Old Road and Greenside Street)	WB	25	0	45	1	20	1	80%	0%
Gable Street (between Stainforth Street and A635 Ashton Old Road)	NB	86	2	174	0	88	-2	102%	-100%
Greenside Street (between Parkhouse Street and Clayton Lane)	NB	53	2	51	3	-2	1	-4%	50%
	SB	80	3	102	3	22	0	28%	0%
Albert Street (between Councillor Street and Darley Street)	EB	198	1	61	1	-137	0	-69%	0%
	WB	47	2	81	2	34	0	72%	0%
Palmerston Street (between Councillor Street and Gurney Street)	EB	299	0	155	0	-144	0	-48%	0%
	WB	367	4	365	3	-2	-1	-1%	-25%
Grey Mare Lane (between Albert Street and A662 Ashton New Road)	NB	78	3	89	3	11	0	14%	0%
	SB	56	4	62	4	6	0	11%	0%
Darley Street (between Albert Street and A662 Ashton New Road)	NB	48	1	120	2	72	1	150%	100%
	SB	91	0	105	0	14	0	15%	0%
Councillor Street (between Palmerston Street and A662 Ashton New Road)	NB	102	0	95	0	-7	0	-7%	0%
	SB	320	3	285	3	-35	0	-11%	0%
Hallkirk Street/Cambrian Street (between A662 Ashton New Road and Phillips Park Road)	NB	44	1	78	1	34	0	77%	0%
	SB	222	2	223	2	1	0	0%	0%
Bradford Road (between A6010 Alan Turing Way and Varley Street)	EB	666	20	627	18	-39	-2	-6%	-10%
	WB	558	10	431	9	-127	-1	-23%	-10%
Grimshaw Lane (between Lord North Street and Briscoe Lane)	EB	239	2	257	2	18	0	8%	0%
	WB	344	2	384	3	40	1	12%	50%

Figure 18-84: MA07 traffic flow changes, 2038 AM peak

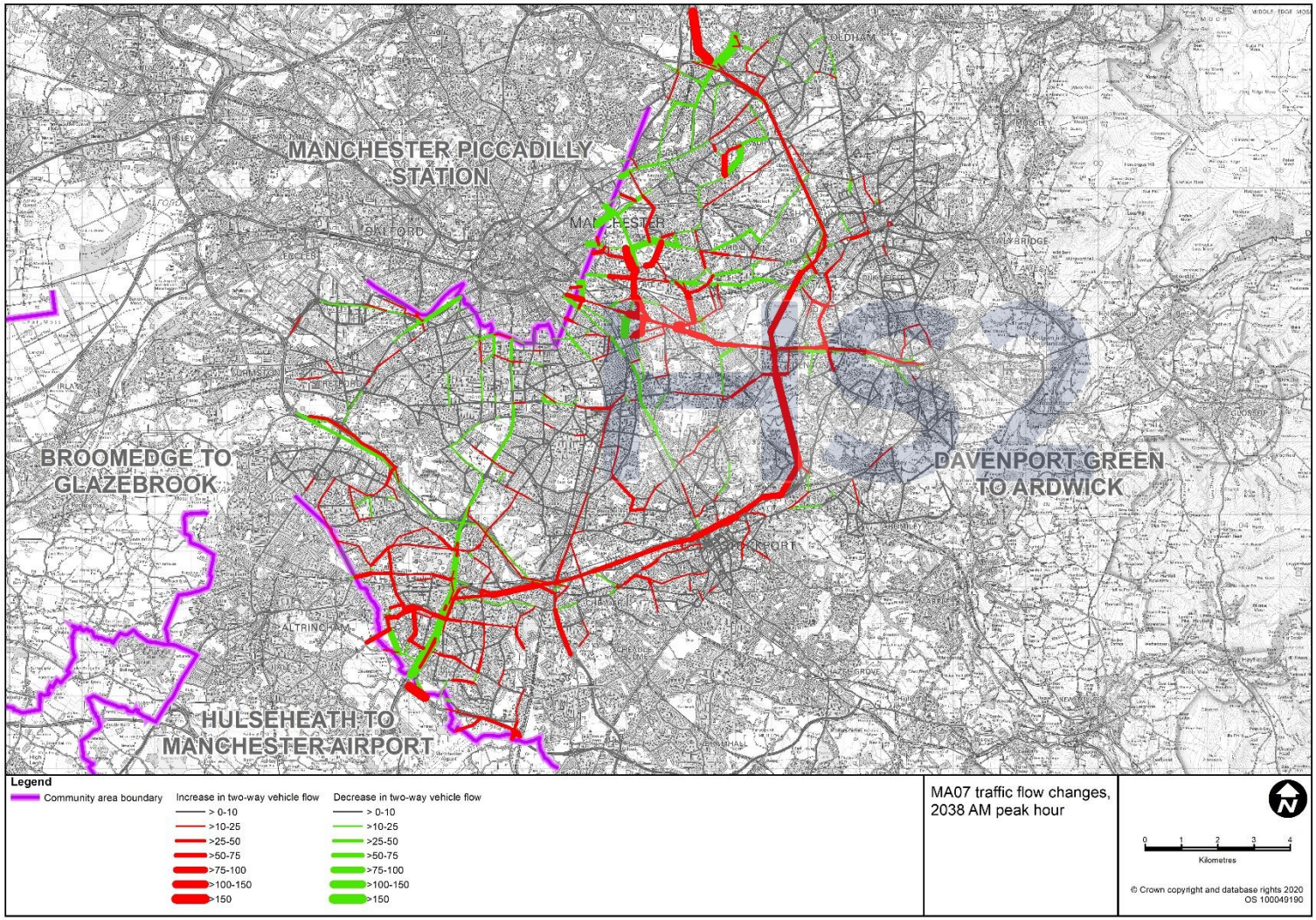


Figure 18-85: MA07 traffic flow changes, 2038 PM peak hour

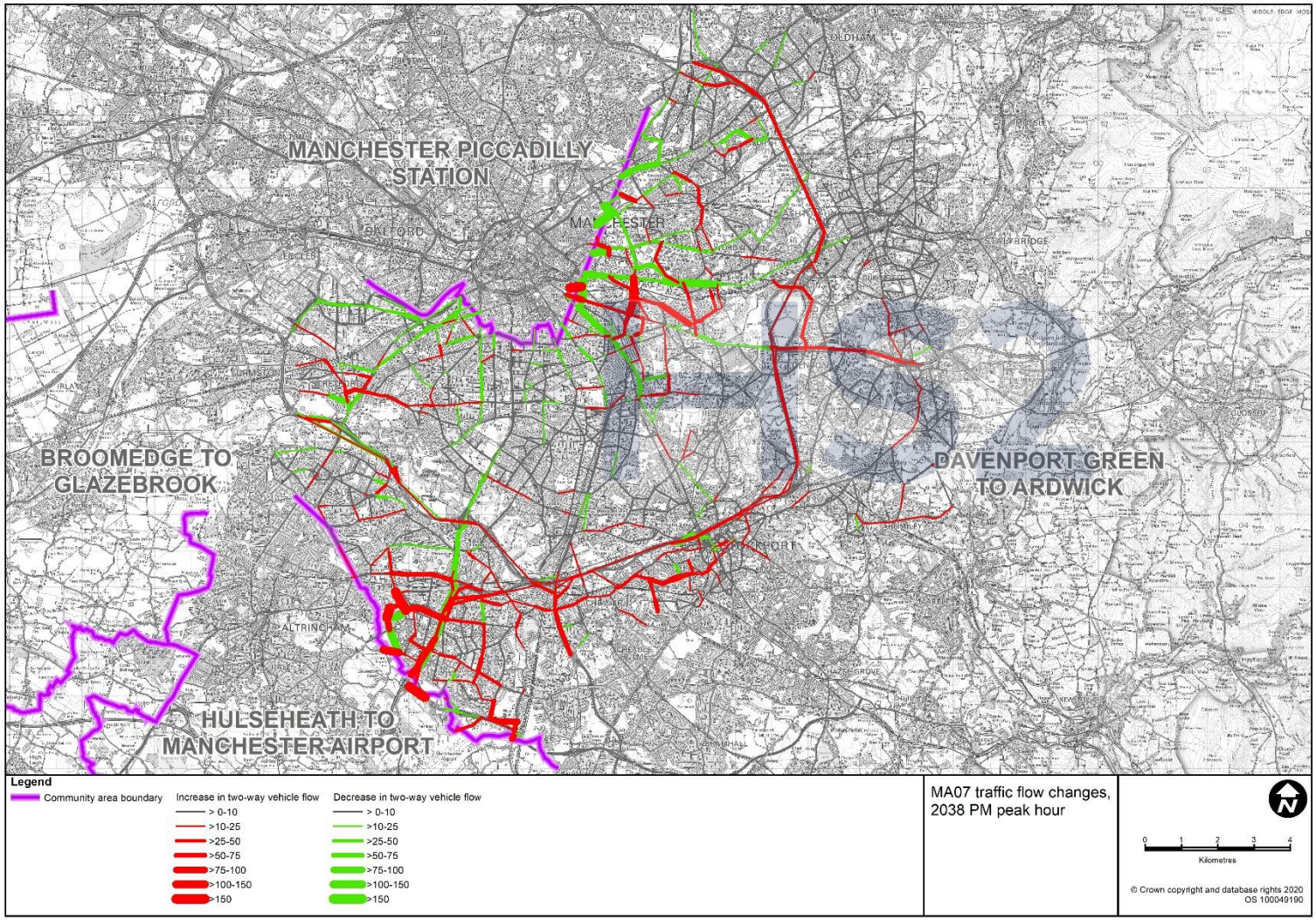


Figure 18-86: MA07 traffic flow changes, 2046 AM peak hour

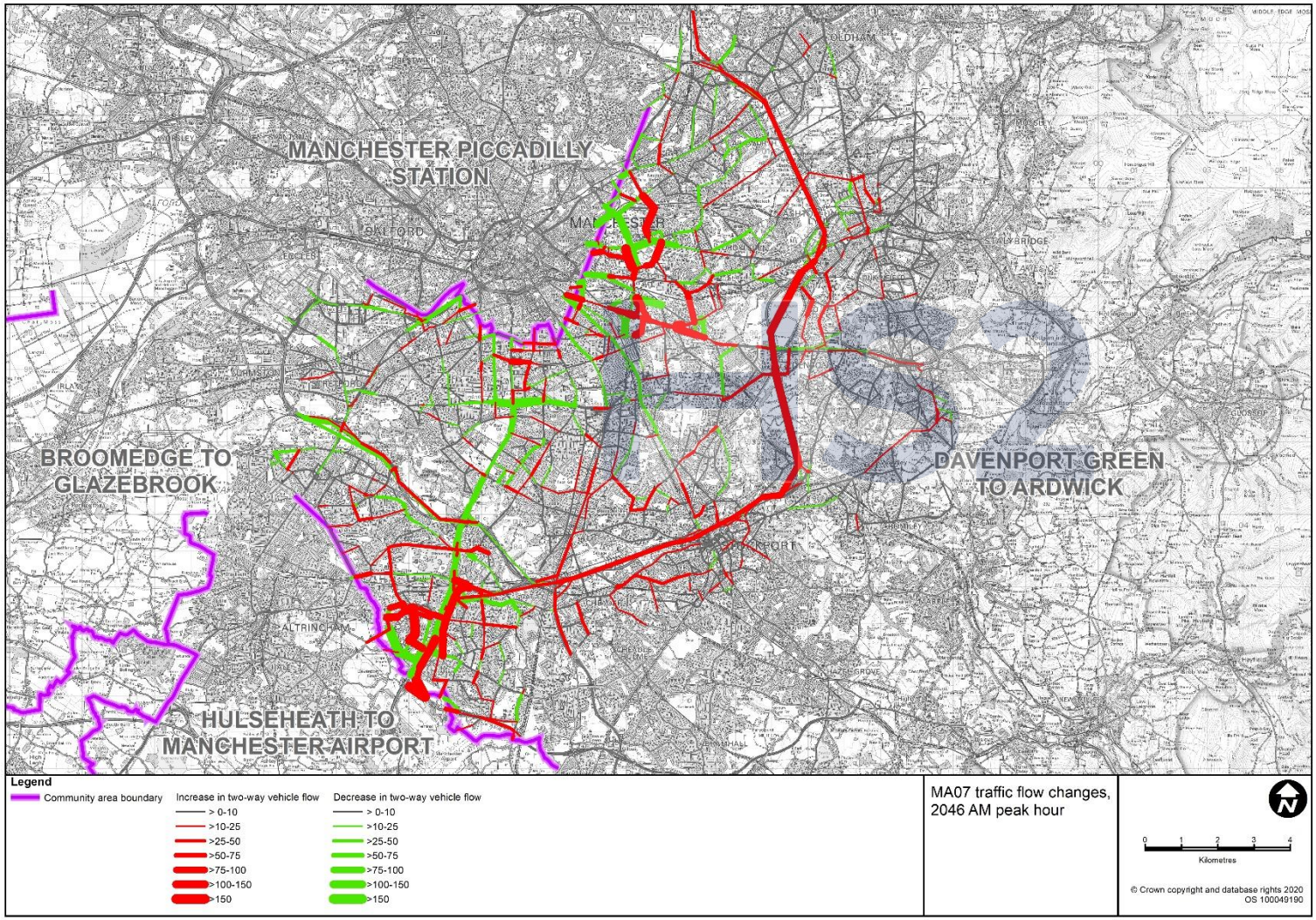
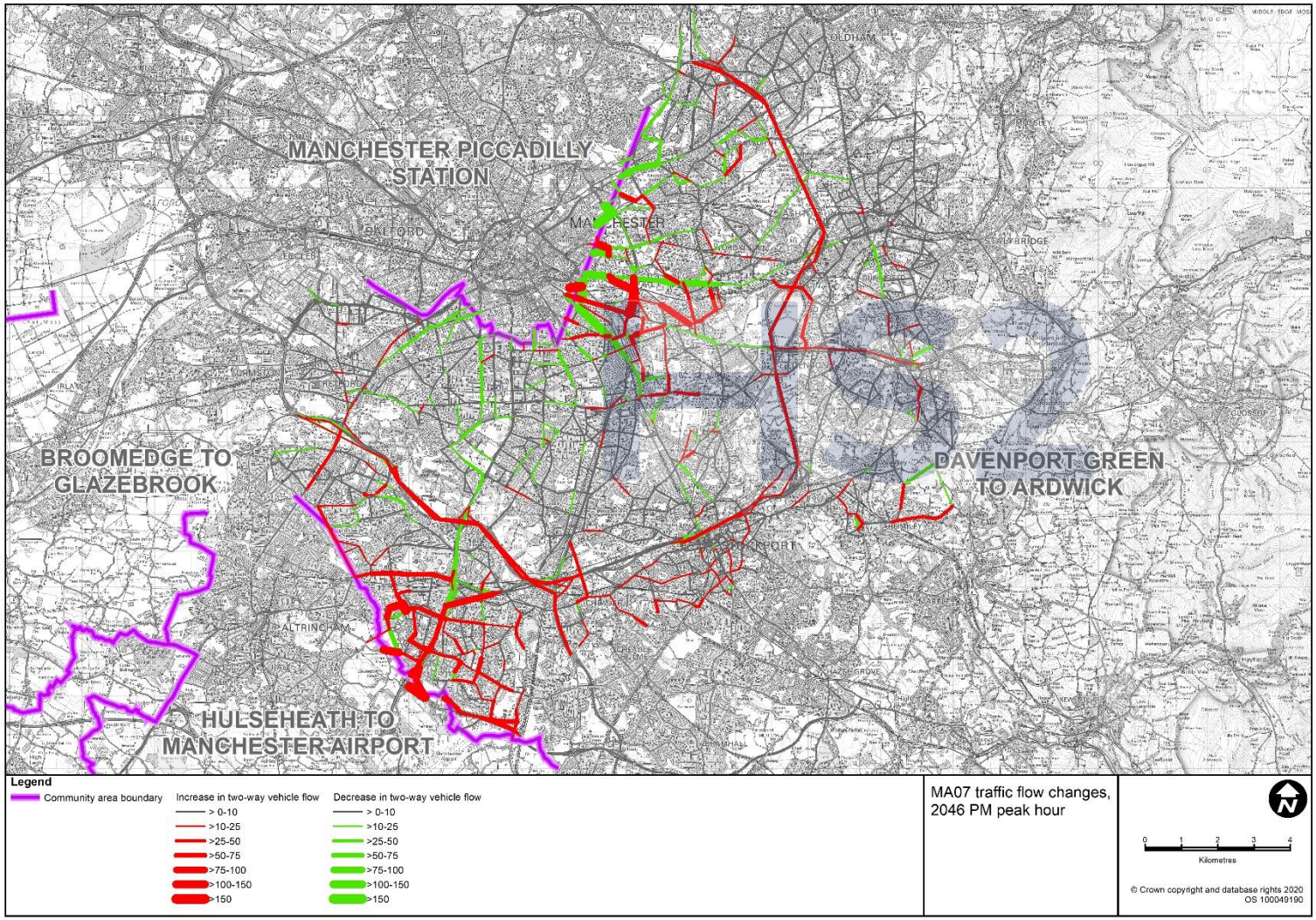


Figure 18-87: MA07 traffic flow changes, 2046 PM peak hour



MA08

18.5.107 The Greater Manchester SATURN Model and the Greater Manchester Public Transport Model have been used to model the operation scenarios in the MA08 area.

18.5.108 Table 18-260 and Table 18-261 set out the traffic flows on highway links affected by operation of the Proposed Scheme for the weekday AM peak hour (08:00–09:00) for 2038 and 2046 respectively. Table 18-262 and Table 18-263 cover the weekday PM peak hour (17:00–18:00) for 2038 and 2046 respectively. Due to the simplified way in which the road network is represented in the strategic models, the use of some local roads may not be precisely reflected in the forecast traffic flows during operation of the Proposed Scheme, however, this is not expected to change the conclusions of the assessment.

18.5.109 Traffic flows on all other links are either unaffected from the future baseline or result in only small changes.

18.5.110 Traffic flow changes are shown in Figure 18-88, Figure 18-89, Figure 18-90 and Figure 18-91for the AM and PM peak hours respectively for both 2038 and 2046. The width of the band indicates the proportional change in traffic, with red representing an increase and green a decrease compared with the 2038 and 2046 future baseline scenario. Flow changes are the combination of changes in passenger demand and reassigned baseline traffic.

Table 18-260: MA08 impacted links, 2038 AM peak

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A635 Fairfield Street diversion (between A635 Ashton Old Road realignment and A665 Chancellor Lane diversion)	NB	1,085	26	-	-	-	-	-	-
	SB	1,079	27	2,995	93	1,916	66	178%	244%
Grafton Street (between A5184 Plymouth Grove and A34 Upper Brook Street)	EB	70	4	83	4	13	0	19%	0%
	WB	136	6	146	6	10	0	7%	0%
Higher Ardwick (between A57 Hyde Road and Ardwick Green North)	NB	536	13	453	14	-83	1	-15%	8%
	SB	563	14	467	13	-96	-1	-17%	-7%
Cambridge Street (between A5103 Mancunian Way and Chester Street)	NB	439	15	437	16	-2	1	0%	7%
	SB	511	12	626	11	115	-1	23%	-8%
Higher Ardwick (between Ardwick Green North and Union Street)	NB	451	14	367	15	-84	1	-19%	7%
	SB	510	9	409	8	-101	-1	-20%	-11%
Chester Street (between Cambridge Street and A34 Oxford Road)	EB	6	6	6	6	0	0	0%	0%
	WB	151	0	120	0	-31	0	-21%	0%
Union Street (between Dark Lane and Higher Ardwick)	NB	187	10	119	3	-68	-7	-36%	-70%
	SB	134	9	28	6	-106	-3	-79%	-33%
Hulme Street (between Lower Chatham Street and Cambridge Street)	EB	223	0	244	0	21	0	9%	0%
	WB	354	3	455	1	101	-2	29%	-67%
A665 Chancellor Lane (between A665 Midland Street and Dark Lane)	NB	989	16	966	26	-23	10	-2%	63%
	SB	1,051	20	973	20	-78	0	-7%	0%
Charles Street (between A34 Princess Street and Sackville Street)	EB	72	5	39	5	-33	0	-46%	0%
	WB	360	5	440	5	80	0	22%	0%
Travis Street (between B6469 Fairfield Street and A6 London Road)**	EB	-	-	-	-	-	-	-	-
	WB	215	4	289	1	74	-3	34%	-75%
A6 London Road (between Travis Street and Altrincham Street)	NB	815	48	786	48	-29	0	-4%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	759	54	538	48	-221	-6	-29%	-11%
A665 Pin Mill Brow realignment (between A635 Ashton Old Road realignment and A635 Mancunian Way northbound realignment)	NB	1,040	17	0	0	-1,040	-17	-100%	-100%
	SB	846	21	2,681	90	1,835	69	217%	329%
A635 Mancunian Way northbound realignment (between A635 Fairfield Street diversion and A665 Pin Mill Brow realignment)	NB	758	23	2,379	84	1,621	61	214%	265%
	SB	1,267	25	0	0	-1,267	-25	-100%	-100%
B6469 Whitworth Street (between A34 Princess Street and Sackville Street)	EB	224	7	173	7	-51	0	-23%	0%
	WB	216	16	201	14	-15	-2	-7%	-13%
B6469 Fairfield Street (between Travis Street and St Andrew's Street diversion)	EB	47	11	206	23	159	12	338%	109%
	WB	83	15	713	21	630	6	759%	40%
St. Andrew's Street diversion (between B6469 Fairfield Street diversion and Helmet Street)	NB	3	0	477	15	474	15	15800%	0%
	SB	0	0	749	12	-	-	-	-
A6 London Road (between Altrincham Street and B6469 Fairfield Street)	NB	815	48	786	48	-29	0	-4%	0%
	SB	759	54	538	48	-221	-6	-29%	-11%
B6469 Fairfield Street (between A6 London Road and Travis Street)	EB	477	22	339	23	-138	1	-29%	5%
	WB	682	26	553	19	-129	-7	-19%	-27%
B6469 Whitworth Street (between Sackville Street and Chorlton Street)	EB	518	23	411	16	-107	-7	-21%	-30%
	WB	760	32	747	28	-13	-4	-2%	-13%
A665 Pin Mill Brow realignment (between A635 Mancunian Way northbound realignment and Palmerston Street)	NB	1,797	41	1,554	36	-243	-5	-14%	-12%
	SB	2,113	46	1,857	42	-256	-4	-12%	-9%
A6 Aytoun Street (between Chorlton Street and Cobourg Street)	EB	194	21	157	20	-37	-1	-19%	-5%
St. Andrew's Street (between B6469 Fairfield Street and Adair Street)	EB	3	0	111	0	108	0	3600%	0%
	WB	0	0	0	0	0	0	0%	0%
Adair Street (between New Sheffield Street and Station Car Park Access)	EB	243	11	0	0	-243	-11	-100%	-100%
	WB	510	21	644	15	134	-6	26%	-27%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A6 London Road (between Auburn Street and B6469 Fairfield Street)	SB	969	59	742	52	-227	-7	-23%	-12%
A6 Aytoun Street (between Cobourg Street and A6 Whitworth Street)	NB	202	30	165	28	-37	-2	-18%	-7%
Adair Street (between Station Car Park Access and St. Andrew's Square)	EB	245	12	0	0	-245	-12	-100%	-100%
	WB	589	22	644	15	55	-7	9%	-31%
A665 Great Ancoats Street (between Helmet Street and Every Street)	NB	1,800	41	1,665	37	-135	-4	-8%	-10%
	SB	2,049	39	1,781	40	-268	1	-13%	3%
St. James Street (between Dickinson Street and A34 Princess Street)**	NB	-	-	-	-	-	-	-	-
	SB	97	2	108	2	11	0	11%	0%
New Sheffield Street (between Baird Street and Adair Street)	EB	286	1	59	1	-227	0	-79%	0%
	WB	332	5	195	3	-137	-2	-41%	-40%
A6 Aytoun Street (between Minshull Street and Auburn Street)	NB	745	72	629	70	-116	-2	-16%	-3%
Minshull Street (between Bloom Street and A6 Aytoun Street)	EB	265	2	200	1	-65	-1	-25%	-50%
	WB	591	4	565	5	-26	1	-4%	25%
Bloom Street (between Minshull Street and Chorlton Street)	NB	158	1	133	1	-25	0	-16%	0%
	SB	148	1	134	1	-14	0	-9%	0%
Store Street (between New Sheffield Street and Boad Street)	EB	176	3	211	4	35	1	20%	33%
	WB	473	7	0	0	-473	-7	-100%	-100%
George Street (between Nicholas Street and A34 Princess Street)	SB	163	2	182	2	19	0	12%	0%
Chorlton Street (between A5103 Portland Street and Major Street)	EB	51	30	66	36	15	6	29%	20%
	WB	328	11	334	12	6	1	2%	9%
Nicholas Street (between St James Street and George Street)	WB	152	4	184	4	32	0	21%	0%
Palmerston Street (between A665 Great Ancoats Street and Gurney Street)	EB	6	0	18	4	12	4	200%	0%
	WB	70	7	94	6	24	-1	34%	-14%
Auburn Street (between A6 Aytoun Street and A6 Piccadilly)	EB	706	34	590	32	-116	-2	-16%	-6%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Nicholas Street (between George Street and Mosley Street)	WB	266	9	296	9	30	0	11%	0%
B6181 Ducie Street (between A6 London Road and New Sheffield Street)	EB	508	8	521	7	13	-1	3%	-13%
	WB	450	4	516	13	66	9	15%	225%
Faulkner Street (between New York Street and Charlotte Street)	SB	160	2	176	2	16	0	10%	0%
B6181 Ducie Street (between New Sheffield Street and B6181 Dale Street)	EB	508	8	509	8	1	0	0%	0%
	WB	450	4	503	14	53	10	12%	250%
Nicholas Street (between Mosley Street and Cooper Street)	WB	266	9	296	9	30	0	11%	0%
A6 Piccadilly (between B6181 Ducie Street and Paton Street)	NB	9	9	9	9	0	0	0%	0%
	SB	90	56	213	44	123	-12	137%	-21%
Ducie Street (between B6181 Dale Street and Peak Street)	EB	30	0	4	1	-26	1	-87%	0%
	WB	51	4	328	7	277	3	543%	75%
New York Street (between George Street and Mosley Street)	EB	221	14	251	12	30	-2	14%	-14%
Fountain Street (between Booth Street and Spring Gardens)	NB	112	3	141	3	29	0	26%	0%
Every Street (between A665 Great Ancoats Street and Carruthers Street)	NB	248	24	242	25	-6	1	-2%	4%
	SB	837	21	699	19	-138	-2	-16%	-10%
B6181 Dale Street (between B6181 Ducie Street and Paton Street)	NB	554	12	542	10	-12	-2	-2%	-17%
	SB	475	4	217	9	-258	5	-54%	125%
Paton Street (between B6181 Dale Street and A6 Piccadilly)	WB	48	16	169	8	121	-8	252%	-50%
B6181 Dale Street (between Paton Street and Port Street)	NB	553	11	541	10	-12	-1	-2%	-9%
	SB	522	19	385	16	-137	-3	-26%	-16%
Fountain Street (between Spring Gardens and York Street)	NB	138	2	191	3	53	1	38%	50%
York Street (between Fountain Street and West Mosley Street)	EB	221	14	251	12	30	-2	14%	-14%
Ducie Street (between A665 Great Ancoats Street and Peak Street)	WB	156	7	389	10	233	3	149%	43%
A665 Great Ancoats Street (between Store Street and Ducie Street)	NB	1,602	41	1,544	36	-58	-5	-4%	-12%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	1,680	49	1,291	45	-389	-4	-23%	-8%
Gurney Street (between Palmerston Street and Every Street)	EB	57	0	59	0	2	0	4%	0%
	WB	65	1	96	2	31	1	48%	100%
Every Street (between Carruthers Street and Gurney Street)	NB	203	16	203	16	0	0	0%	0%
	SB	875	16	695	15	-180	-1	-21%	-6%
B6181 Dale Street (between A62 Newton Street and Port Street)	EB	377	7	291	5	-86	-2	-23%	-29%
Fountain Street (between York Street and Market Street)	NB	331	15	376	16	45	1	14%	7%
Carruthers Street (between A662 Pollard Street and Every Street)	NB	112	10	119	11	7	1	6%	10%
	SB	29	6	84	6	55	0	190%	0%
Port Street (between B6181 Dale Street and Hilton Street)	EB	285	4	332	4	47	0	16%	0%
King Street West (between St Mary's Parsonage and Southgate)	EB	301	2	358	1	57	-1	19%	-50%
A662 Pollard Street (between Munday Street and Carruthers Street)	NB	105	1	15	1	-90	0	-86%	0%
	SB	237	7	110	6	-127	-1	-54%	-14%
A665 Great Ancoats Street (between Laystall Street and Urban Exchange car park access)	NB	1,374	33	1,271	29	-103	-4	-7%	-12%
	SB	1,618	47	1,418	43	-200	-4	-12%	-9%
Southgate (between King Street West and Back South Parade)**	NB	98	0	152	0	54	0	55%	0%
	SB	-	-	-	-	-	-	-	-
Every Street (between Gurney Street and A662 Merrill Street)	NB	161	16	147	16	-14	0	-9%	0%
	SB	826	14	601	13	-225	-1	-27%	-7%
A662 Merrill Street (between Carruthers Street and Every Street)	EB	168	1	82	1	-86	0	-51%	0%
	WB	128	7	124	7	-4	0	-3%	0%
A665 Great Ancoats Street (between Urban Exchange car park access and Port Street)	NB	899	30	822	28	-77	-2	-9%	-7%
	SB	1,325	35	1,159	35	-166	0	-13%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
High Street (between Market Street and A6 Church Street)	NB	331	15	376	16	45	1	14%	7%
A665 Great Ancoats Street (between Port Street and A62 Newton Street)	NB	1,048	34	968	31	-80	-3	-8%	-9%
	SB	1,325	35	1,159	35	-166	0	-13%	0%
Red Lion Street (between A6 Church Street and Turner Street)	NB	124	1	136	1	12	0	10%	0%
Beswick Street (between Old Mill Street and A662 Merrill Street)	EB	219	4	156	2	-63	-2	-29%	-50%
	WB	155	9	141	9	-14	0	-9%	0%
Turner Street (between Red Lion Street and John Street)	EB	124	1	136	1	12	0	10%	0%
John Street (between Turner Street and Thomas Street)	NB	124	1	136	1	12	0	10%	0%
A665 Great Ancoats Street (between A62 Newton Street and A62 Lever Street)	NB	1,044	34	965	31	-79	-3	-8%	-9%
	SB	1,486	41	1,245	39	-241	-2	-16%	-5%
A6 Blackfriars Street (between A6041 Chapel Street and Parsonage)	EB	519	30	550	29	31	-1	6%	-3%
	WB	323	35	384	34	61	-1	19%	-3%
A665 Great Ancoats Street (between A62 Lever Street and A62 Oldham Road)	NB	1,205	65	1,141	62	-64	-3	-5%	-5%
	SB	1,355	31	1,099	29	-256	-2	-19%	-6%
A664 Nicholas Croft (between A6 Church Street and Shudehill)**	NB	180	64	201	64	21	0	12%	0%
	SB	-	-	-	-	-	-	-	-
A62 Oldham Road (between A665 Addington Street and A665 Great Ancoats Street)	NB	313	29	272	26	-41	-3	-13%	-10%
	SB	1,674	74	1,468	73	-206	-1	-12%	-1%
A6042 Corporation Street (between Todd Street and Hanover Street)	NB	94	8	115	8	21	0	22%	0%
	SB	114	4	133	4	19	0	17%	0%
Gravel Lane (between A6041 Blackfriars Road and Queen Street)	NB	0	0	0	0	0	0	0%	0%
	SB	337	3	379	3	42	0	12%	0%
A665 Addington Street (between A664 Rochdale Road and A62 Oldham Road)	EB	1,312	35	1,142	39	-170	4	-13%	11%
Gravel Lane (between Queen Street and Greengate)**	NB	-	-	-	-	-	-	-	-

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	337	3	379	3	42	0	12%	0%
A6042 Corporation Street (between Hanover Street and Long Millgate)	NB	94	8	115	8	21	0	22%	0%
	SB	286	8	304	8	18	0	6%	0%
Greengate (between B6182 New Bridge Street and Gravel Lane)	NB	337	3	379	3	42	0	12%	0%
Butler Street (between A62 Oldham Road and Old Mill Street)	EB	239	11	149	9	-90	-2	-38%	-18%
	WB	275	12	283	15	8	3	3%	25%
A6042 Corporation Street (between Long Millgate and A665 Cheetham Hill Road)	NB	94	8	115	8	21	0	22%	0%
	SB	286	8	304	8	18	0	6%	0%
B6182 New Bridge Street (between A6042 Trinity Way and B6182 Greengate)	SB	337	3	379	3	42	0	12%	0%
A6042 Trinity Way (between A6041 Blackfriars Road and B6182 New Bridge Street)	EB	1,457	37	1,531	40	74	3	5%	8%
	WB	720	16	873	23	153	7	21%	44%
A6041 Blackfriars Road (between Mount Street and A6042 Trinity Way)	EB	969	29	1,085	29	116	0	12%	0%
	WB	336	31	419	33	83	2	25%	6%
A664 Rochdale Road (between Livesey Street and Osborne Street)	NB	323	6	269	6	-54	0	-17%	0%
	SB	724	19	655	18	-69	-1	-10%	-5%
A664 Rochdale Road (between Osborne Street and Collyhurst Street)	NB	329	7	277	7	-52	0	-16%	0%
	SB	763	19	694	18	-69	-1	-9%	-5%
A6010 Hulme Hall Lane (between A62 Oldham Road and Drewett Street)	NB	847	35	828	35	-19	0	-2%	0%
	SB	1,147	40	1,020	41	-127	1	-11%	2%
B6180 Waterloo Road (between A6010 Elizabeth Street and Dudley Street)	NB	149	9	147	9	-2	0	-1%	0%
	SB	153	6	212	6	59	0	39%	0%
B6180 Waterloo Road (between Dudley Street and A665 Cheetham Hill Road)	NB	162	9	160	9	-2	0	-1%	0%
	SB	155	8	214	8	59	0	38%	0%

***Some minor traffic movements on two-way roads are not represented in the strategic traffic model.*

Table 18-261: MA08 impacted links, 2046 AM peak

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A635 Fairfield Street diversion (between A635 Ashton Old Road realignment and A665 Chancellor Lane diversion)	NB	1,090	30	-	-	-	-	-	-
	SB	1,088	27	3,044	95	1,956	68	180%	252%
Grafton Street (between A5184 Plymouth Grove and A34 Upper Brook Street)	EB	56	4	70	4	14	0	25%	0%
	WB	155	6	164	6	9	0	6%	0%
Royce Road (between A5067 Chorlton Road and City Road)	EB	308	15	349	15	41	0	13%	0%
	WB	98	8	100	8	2	0	2%	0%
B5177 Oxford Road (between Booth Street East and Grosvenor Street)	NB	255	131	291	131	36	0	14%	0%
	SB	361	113	391	109	30	-4	8%	-4%
Higher Ardwick (between A57 Hyde Road and Ardwick Green North)	NB	549	14	480	15	-69	1	-13%	7%
	SB	580	14	469	13	-111	-1	-19%	-7%
Higher Ardwick (between Ardwick Green North and Union Street)	NB	458	15	388	16	-70	1	-15%	7%
	SB	524	9	408	8	-116	-1	-22%	-11%
Union Street (between Dark Lane and Higher Ardwick)	NB	172	12	126	3	-46	-9	-27%	-75%
	SB	143	9	30	6	-113	-3	-79%	-33%
Hulme Street (between Lower Chatham Street and Cambridge Street)	EB	247	0	236	0	-11	0	-4%	0%
	WB	369	3	444	2	75	-1	20%	-33%
A665 Chancellor Lane (between A665 Midland Street and Dark Lane)	NB	1,014	18	985	28	-29	10	-3%	56%
	SB	1,060	20	990	19	-70	-1	-7%	-5%
Charles Street (between A34 Princess Street and Sackville Street)	EB	66	5	31	5	-35	0	-53%	0%
	WB	357	6	445	6	88	0	25%	0%
Travis Street (between B6469 Fairfield Street and A6 London Road)*	EB	-	-	-	-	-	-	-	-
	WB	218	4	314	1	96	-3	44%	-75%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A6 London Road (between Travis Street and Altrincham Street)	NB	848	48	813	48	-35	0	-4%	0%
	SB	802	54	567	49	-235	-5	-29%	-9%
A665 Pin Mill Brow realignment (between A635 Ashton Old Road realignment and A635 Mancunian Way northbound realignment)	NB	1,041	19	0	0	-1,041	-19	-100%	-100%
	SB	865	21	2,700	97	1,835	76	212%	362%
A635 Mancunian Way northbound realignment (between A635 Fairfield Street diversion and A665 Pin Mill Brow realignment)	NB	775	24	2,367	87	1,592	63	205%	263%
	SB	1,280	30	0	0	-1,280	-30	-100%	-100%
A34 Oxford Street (between B6469 Whitworth Street and A5103 Portland Street)	NB	147	147	147	147	0	0	0%	0%
	SB	124	1	155	1	31	0	25%	0%
B6469 Fairfield Street (between Travis Street and St Andrew's Street diversion)	EB	47	11	215	23	168	12	357%	109%
	WB	85	15	724	20	639	5	752%	33%
St. Andrew's Street diversion (between B6469 Fairfield Street diversion and Helmet Street)	NB	3	0	495	16	492	16	16400%	0%
	SB	0	0	741	12	-	-	-	-
A6 London Road (between Altrincham Street and B6469 Fairfield Street)	NB	848	48	813	48	-35	0	-4%	0%
	SB	802	54	567	49	-235	-5	-29%	-9%
B6469 Fairfield Street (between A6 London Road and Travis Street)	EB	497	23	357	23	-140	0	-28%	0%
	WB	682	26	541	19	-141	-7	-21%	-27%
B6469 Whitworth Street (between Sackville Street and Chorlton Street)	EB	539	25	421	17	-118	-8	-22%	-32%
	WB	761	32	753	28	-8	-4	-1%	-13%
A665 Pin Mill Brow realignment (between A635 Mancunian Way northbound realignment and Palmerston Street)	NB	1,816	43	1,571	39	-245	-4	-13%	-9%
	SB	2,145	51	1,905	47	-240	-4	-11%	-8%
A6 Aytoun Street (between Chorlton Street and Cobourg Street)	EB	199	22	164	20	-35	-2	-18%	-9%
St. Andrew's Street (between B6469 Fairfield Street and Adair Street)	EB	3	0	113	0	110	0	3667%	0%
	WB	0	0	0	0	0	0	0%	0%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Adair Street (between New Sheffield Street and Station Car Park Access)	EB	247	12	0	0	-247	-12	-100%	-100%
	WB	493	23	644	15	151	-8	31%	-34%
A6 London Road (between Auburn Street and B6469 Fairfield Street)	SB	1,000	60	754	54	-246	-6	-25%	-10%
A6 Aytoun Street (between Cobourg Street and A6 Whitworth Street)	NB	207	31	172	29	-35	-2	-17%	-6%
Adair Street (between Station Car Park Access and St. Andrew's Square)	EB	250	13	0	0	-250	-13	-100%	-100%
	WB	576	24	644	15	68	-9	12%	-37%
Chorlton Street (between B6469 Whitworth Street and Bloom Street)	EB	58	25	108	34	50	9	86%	36%
St. James Street (between Dickinson Street and A34 Princess Street)*	NB	-	-	-	-	-	-	-	-
	SB	100	2	115	2	15	0	15%	0%
New Sheffield Street (between Baird Street and Adair Street)	EB	292	2	57	1	-235	-1	-80%	-50%
	WB	338	6	210	3	-128	-3	-38%	-50%
A6 Aytoun Street (between Minshull Street and Auburn Street)	NB	770	73	645	70	-125	-3	-16%	-4%
Store Street (between New Sheffield Street and Boad Street)	EB	199	4	236	4	37	0	19%	0%
	WB	480	7	0	0	-480	-7	-100%	-100%
Chorlton Street (between A5103 Portland Street and Major Street)	EB	58	31	68	36	10	5	17%	16%
	WB	331	11	335	12	4	1	1%	9%
Nicholas Street (between St James Street and George Street)	WB	159	4	179	4	20	0	13%	0%
Palmerston Street (between A665 Great Ancoats Street and Gurney Street)	EB	1	0	18	4	17	4	1700%	0%
	WB	67	7	83	7	16	0	24%	0%
Auburn Street (between A6 Aytoun Street and A6 Piccadilly)	EB	731	35	607	32	-124	-3	-17%	-9%
B6181 Ducie Street (between New Sheffield Street and B6181 Dale Street)	EB	511	9	489	9	-22	0	-4%	0%
	WB	455	8	484	15	29	7	6%	88%
A6 Piccadilly (between B6181 Ducie Street and Paton Street)	NB	9	9	8	8	-1	-1	-11%	-11%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	110	53	219	46	109	-7	99%	-13%
Ducie Street (between B6181 Dale Street and Peak Street)	EB	26	1	4	1	-22	0	-85%	0%
	WB	78	5	397	11	319	6	409%	120%
Fountain Street (between Booth Street and Spring Gardens)	NB	118	3	138	3	20	0	17%	0%
Every Street (between A665 Great Ancoats Street and Carruthers Street)	NB	255	26	240	27	-15	1	-6%	4%
	SB	838	23	713	21	-125	-2	-15%	-9%
B6181 Dale Street (between B6181 Ducie Street and Paton Street)	NB	559	13	525	11	-34	-2	-6%	-15%
	SB	451	8	132	6	-319	-2	-71%	-25%
Paton Street (between B6181 Dale Street and A6 Piccadilly)	WB	67	13	178	10	111	-3	166%	-23%
Fountain Street (between Spring Gardens and York Street)	NB	143	2	188	2	45	0	31%	0%
Ducie Street (between A665 Great Ancoats Street and Peak Street)	WB	188	6	481	14	293	8	156%	133%
B6181 Dale Street (between Paton Street and Port Street)	NB	289	5	330	5	41	0	14%	0%
	SB	375	8	232	5	-143	-3	-38%	-38%
A665 Great Ancoats Street (between Store Street and Ducie Street)	NB	1,622	41	1,590	36	-32	-5	-2%	-12%
	SB	1,708	53	1,324	48	-384	-5	-22%	-9%
Gurney Street (between Palmerston Street and Every Street)	EB	65	0	61	0	-4	0	-6%	0%
	WB	66	1	118	1	52	0	79%	0%
Laystall Street (between Tariff Street and A665 Great Ancoats Street)	EB	70	2	110	4	40	2	57%	100%
Every Street (between Carruthers Street and Gurney Street)	NB	214	16	203	17	-11	1	-5%	6%
	SB	885	16	723	14	-162	-2	-18%	-13%
A665 Great Ancoats Street (between Ducie Street and Laystall Street)	NB	1,461	35	1,330	27	-131	-8	-9%	-23%
	SB	1,736	53	1,545	52	-191	-1	-11%	-2%
B6181 Dale Street (between A62 Newton Street and Port Street)	EB	375	8	244	6	-131	-2	-35%	-25%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Fountain Street (between York Street and Market Street)	NB	329	15	378	16	49	1	15%	7%
Tariff Street (between Brewer Street and Laystall Street)	EB	43	1	106	3	63	2	147%	200%
	WB	109	1	84	2	-25	1	-23%	100%
Carruthers Street (between A662 Pollard Street and Every Street)	NB	109	11	136	11	27	0	25%	0%
	SB	21	7	90	7	69	0	329%	0%
Port Street (between B6181 Dale Street and Hilton Street)	EB	289	5	342	7	53	2	18%	40%
A662 Pollard Street (between Munday Street and Carruthers Street)	NB	108	1	22	1	-86	0	-80%	0%
	SB	237	7	120	6	-117	-1	-49%	-14%
A6 Dale Street (between A62 Lever Street and Newton Street)	EB	219	5	158	6	-61	1	-28%	20%
A665 Great Ancoats Street (between Laystall Street and Urban Exchange car park access)	NB	1,386	35	1,261	27	-125	-8	-9%	-23%
	SB	1,670	50	1,443	49	-227	-1	-14%	-2%
Southgate (between King Street West and Back South Parade)*	NB	195	0	221	0	26	0	13%	0%
	SB	-	-	-	-	-	-	-	-
Every Street (between Gurney Street and A662 Merrill Street)	NB	168	16	148	17	-20	1	-12%	6%
	SB	838	15	611	13	-227	-2	-27%	-13%
Back South Parade (between St. Mary's Parsonage and Southgate)	WB	94	0	119	0	25	0	27%	0%
A62 Lever Street (between Dale Street and Stevenson Square)	NB	341	36	415	36	74	0	22%	0%
A662 Merrill Street (between Carruthers Street and Every Street)	EB	177	1	71	1	-106	0	-60%	0%
	WB	125	8	87	7	-38	-1	-30%	-13%
A665 Great Ancoats Street (between Urban Exchange car park access and Port Street)	NB	911	32	811	24	-100	-8	-11%	-25%
	SB	1,376	38	1,177	37	-199	-1	-14%	-3%
A62 Lever Street (between Stevenson Square and A665 Great Ancoats Street)	NB	298	35	360	35	62	0	21%	0%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Hilton Street (between Oldham Street and A62 Lever Street)**	EB	0	0	0	0	0	0	0%	0%
	WB	259	4	223	3	-36	-1	-14%	-25%
High Street (between Market Street and A6 Church Street)	NB	329	15	378	16	49	1	15%	7%
Carruthers Street (between Old Mill Street and A662 Pollard Street)	NB	178	14	176	14	-2	0	-1%	0%
	SB	271	10	210	9	-61	-1	-23%	-10%
A665 Great Ancoats Street (between Port Street and A62 Newton Street)	NB	1,054	37	965	28	-89	-9	-8%	-24%
	SB	1,376	38	1,175	37	-201	-1	-15%	-3%
Red Lion Street (between A6 Church Street and Turner Street)	NB	118	1	136	1	18	0	15%	0%
Hilton Street (between Tib Street and Oldham Street)**	EB	0	0	0	0	0	0	0%	0%
	WB	259	4	223	3	-36	-1	-14%	-25%
Turner Street (between Red Lion Street and John Street)	EB	118	1	136	1	18	0	15%	0%
Thomas Street (between Tib Street and John Street)	WB	319	6	283	5	-36	-1	-11%	-17%
John Street (between Turner Street and Thomas Street)	NB	118	1	136	1	18	0	15%	0%
A665 Great Ancoats Street (between A62 Newton Street and A62 Lever Street)	NB	1,048	35	961	27	-87	-8	-8%	-23%
	SB	1,534	45	1,263	39	-271	-6	-18%	-13%
A665 Great Ancoats Street (between A62 Lever Street and A62 Oldham Road)	NB	1,215	65	1,143	59	-72	-6	-6%	-9%
	SB	1,409	35	1,090	30	-319	-5	-23%	-14%
A62 Oldham Road (between A665 Addington Street and A665 Great Ancoats Street)A664 Shudehill (between Thomas Street and Bus Station Entry)	NB	319	29	279	26	-40	-3	-13%	-10%
	SB	1,760	79	1,463	74	-297	-5	-17%	-6%
	EB	216	87	180	87	-36	0	-17%	0%
A664 Shudehill (between Bus Station Entry and Hanover Street)	WB	86	39	88	39	2	0	2%	0%
	EB	169	41	134	41	-35	0	-21%	0%
Gravel Lane (between A6041 Blackfriars Road and Queen Street)	WB	102	56	104	55	2	-1	2%	-2%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	NB	0	0	0	0	0	0	0%	0%
A665 Addington Street (between A664 Rochdale Road and A62 Oldham Road)	SB	251	3	333	3	82	0	33%	0%
	EB	1,330	39	1,165	41	-165	2	-12%	5%
Gravel Lane (between Queen Street and Greengate)*	NB	-	-	-	-	-	-	-	-
	SB	251	3	333	3	82	0	33%	0%
Greengate (between B6182 New Bridge Street and Gravel Lane)	NB	251	3	333	3	82	0	33%	0%
B6182 New Bridge Street (between A6042 Trinity Way and B6182 Greengate)	SB	251	3	333	3	82	0	33%	0%
Elton Street (between Alexandra Street and Cottenham Lane)	EB	37	1	49	1	12	0	32%	0%
	WB	103	1	108	0	5	-1	5%	-100%
Cottenham Lane/Sherbourne Street West (between Edward Street and A56 Bury New Road)	EB	37	1	49	1	12	0	32%	0%
	WB	103	1	108	0	5	-1	5%	-100%
A664 Rochdale Road (between Livesey Street and Osborne Street)	NB	368	6	329	6	-39	0	-11%	0%
	SB	749	18	667	18	-82	0	-11%	0%
A664 Rochdale Road (between Osborne Street and Collyhurst Street)	NB	370	7	323	7	-47	0	-13%	0%
	SB	788	18	710	18	-78	0	-10%	0%
B6180 Waterloo Road (between A6010 Elizabeth Street and Dudley Street)	NB	151	9	151	9	0	0	0%	0%
	SB	142	7	187	6	45	-1	32%	-14%
B6180 Waterloo Road (between Dudley Street and A665 Cheetham Hill Road)	NB	167	10	167	10	0	0	0%	0%
	SB	144	9	189	8	45	-1	31%	-11%

**Some minor traffic movements on two-way roads are not represented in the strategic traffic model.*

***Some traffic movements may not be precisely reflected due to the simplified way in which the road network is represented in the strategic traffic models, however, this is not expected to change the conclusions of the assessment.*

Table 18-262: MA08 impacted links, 2038 PM peak

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A635 Fairfield Street diversion (between A635 Ashton Old Road realignment and A665 Chancellor Lane diversion)	NB	1,134	14	-	-	-	-	-	-
	SB	780	7	2,116	33	1,336	26	171%	371%
Dover Street (between B5117 Oxford Road and A34 Upper Brook Street)	EB	421	9	421	3	0	-6	0%	-67%
	WB	227	3	196	2	-31	-1	-14%	-33%
A34 Grosvenor Street (between A34 Brook Street and A34 Oxford Road)	WB	232	9	192	9	-40	0	-17%	0%
Higher Ardwick (between Ardwick Green North and Union Street)	NB	509	7	398	6	-111	-1	-22%	-14%
	SB	353	3	366	8	13	5	4%	167%
Grosvenor Street (between A6 Downing Street and A34 Brook Street)	WB	357	3	284	2	-73	-1	-20%	-33%
Union Street (between Dark Lane and Higher Ardwick)	NB	161	6	41	4	-120	-2	-75%	-33%
	SB	229	4	206	7	-23	3	-10%	75%
Sackville Street (between A57(M) Mancunian Way and Charles Street)	NB	777	1	821	1	44	0	6%	0%
A6 London Road (between Travis Street and Altrincham Street)	NB	237	37	258	37	21	0	9%	0%
	SB	689	44	574	41	-115	-3	-17%	-7%
A665 Pin Mill Brow realignment (between A635 Ashton Old Road realignment and A635 Mancunian Way northbound realignment)	NB	1,413	15	0	0	-1,413	-15	-100%	-100%
	SB	933	6	2,931	43	1,998	37	214%	617%
A635 Mancunian Way northbound realignment (between A635 Fairfield Street diversion and A665 Pin Mill Brow realignment)	NB	1,034	16	2,782	43	1,748	27	169%	169%
	SB	819	12	0	0	-819	-12	-100%	-100%
B6469 Whitworth Street (between A34 Princess Street and Sackville Street)	EB	274	6	216	6	-58	0	-21%	0%
	WB	184	5	171	5	-13	0	-7%	0%
B6469 Fairfield Street (between Travis Street and St Andrew's Street diversion)	EB	56	9	504	15	448	6	800%	67%
	WB	170	10	592	16	422	6	248%	60%
	NB	0	0	643	6	643	6	0%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
St. Andrew's Street diversion (between B6469 Fairfield Street diversion and Helmet Street)	SB	87	0	363	6	276	6	317%	0%
A6 London Road (between Altrincham Street and B6469 Fairfield Street)	NB	237	37	258	37	21	0	9%	0%
	SB	689	44	574	41	-115	-3	-17%	-7%
B6469 Fairfield Street (between A6 London Road and Travis Street)	EB	266	14	602	15	336	1	126%	7%
	WB	407	14	393	14	-14	0	-3%	0%
B6469 Whitworth Street (between Sackville Street and Chorlton Street)	EB	531	11	498	11	-33	0	-6%	0%
	WB	840	15	736	16	-104	1	-12%	7%
A665 Pin Mill Brow realignment (between A635 Mancunian Way northbound realignment and Palmerston Street)	NB	2,447	31	1,770	20	-677	-11	-28%	-35%
	SB	1,752	18	1,920	19	168	1	10%	6%
Bloom Street (between Sackville Street and A34 Princess Street)	NB	124	0	162	0	38	0	31%	0%
	SB	265	2	276	2	11	0	4%	0%
St. Andrew's Street (between B6469 Fairfield Street and Adair Street)	EB	0	0	108	0	108	0	0%	0%
	WB	87	0	2	0	-85	0	-98%	0%
Adair Street (between New Sheffield Street and Station Car Park Access)	EB	426	7	0	0	-426	-7	-100%	-100%
	WB	580	10	387	6	-193	-4	-33%	-44%
A665 Great Ancoats Street (between Helmet Street and Every Street)	NB	2,360	31	1,877	20	-483	-11	-20%	-35%
	SB	1,589	16	1,682	17	93	1	6%	6%
A6 Aytoun Street (between A6 Whitworth Street and Minshull Street)	NB	420	56	355	55	-65	-1	-15%	-2%
New Sheffield Street (between Baird Street and Adair Street)	EB	221	1	63	0	-158	-1	-71%	-100%
	WB	76	1	483	2	407	1	536%	100%
A6 London Road (between Auburn Street and B6469 Fairfield Street)	SB	866	41	1,032	41	166	0	19%	0%
Store Street (between New Sheffield Street and Boad Street)	EB	364	3	146	1	-218	-2	-60%	-67%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	374	2	0	0	-374	-2	-100%	-100%
Adair Street (between St. Andrew's Square and A665 Great Ancoats Street)	NB	505	4	0	0	-505	-4	-100%	-100%
	SB	173	3	387	6	214	3	124%	88%
Palmerston Street (between A665 Great Ancoats Street and Gurney Street)	EB	166	0	50	0	-116	0	-70%	0%
	WB	330	3	287	2	-43	-1	-13%	-33%
A665 Great Ancoats Street (between Adair Street and A662 Pollard Street)	NB	2,400	21	1,719	17	-681	-4	-28%	-19%
	SB	1,185	20	1,193	17	8	-3	1%	-15%
B6181 Ducie Street (between A6 London Road and New Sheffield Street)	EB	372	1	374	1	2	0	1%	0%
	WB	255	1	368	1	113	0	44%	0%
B6181 Ducie Street (between New Sheffield Street and B6181 Dale Street)	EB	372	1	535	2	163	1	44%	100%
	WB	255	1	307	2	52	1	20%	100%
A6 Piccadilly (between B6181 Ducie Street and Paton Street)	NB	7	7	7	7	0	0	0%	0%
	SB	256	37	373	35	117	-2	46%	-5%
A665 Great Ancoats Street (between Pollard Street and Chapeltown Street)	NB	2,340	27	1,811	24	-529	-3	-23%	-11%
	SB	1,320	23	1,304	21	-16	-2	-1%	-9%
Every Street (between A665 Great Ancoats Street and Carruthers Street)	NB	369	25	321	18	-48	-7	-13%	-28%
	SB	518	11	463	10	-55	-1	-11%	-9%
B6181 Dale Street (between B6181 Ducie Street and Paton Street)	NB	573	1	580	2	7	1	1%	100%
	SB	314	1	135	2	-179	1	-57%	100%
Paton Street (between B6181 Dale Street and A6 Piccadilly)	WB	209	3	322	2	113	-1	54%	-33%
A665 Great Ancoats Street (between Chapeltown Street and Store Street)	NB	2,352	28	1,805	24	-547	-4	-23%	-14%
	SB	1,320	23	1,304	21	-16	-2	-1%	-9%
Fountain Street (between Spring Gardens and York Street)	NB	257	1	320	1	63	0	25%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Ducie Street (between B6181 Dale Street and Peak Street)	NB	412	1	302	1	-110	0	-27%	0%
B6181 Dale Street (between Paton Street and Port Street)	NB	296	2	413	2	117	0	40%	0%
	SB	345	2	374	2	29	0	8%	0%
A665 Great Ancoats Street (between Store Street and Ducie Street)	NB	2,009	28	1,570	25	-439	-3	-22%	-11%
	SB	1,490	24	1,339	22	-151	-2	-10%	-8%
Gurney Street (between Palmerston Street and Every Street)	EB	110	0	120	0	10	0	9%	0%
	WB	32	1	78	1	46	0	144%	0%
Every Street (between Carruthers Street and Gurney Street)	NB	297	17	358	12	61	-5	21%	-29%
	SB	502	10	589	10	87	0	17%	0%
A665 Great Ancoats Street (between Ducie Street and Laystall Street)	NB	1,487	27	1,188	24	-299	-3	-20%	-11%
	SB	1,522	25	1,476	22	-46	-3	-3%	-12%
Tariff Street (between Brewer Street and Laystall Street)	EB	0	0	78	0	78	0	0%	0%
	WB	266	0	248	0	-18	0	-7%	0%
Carruthers Street (between A662 Pollard Street and Every Street)	NB	250	9	301	7	51	-2	20%	-22%
	SB	193	2	213	2	20	0	10%	0%
Port Street (between B6181 Dale Street and Hilton Street)	EB	296	2	413	2	117	0	40%	0%
A62 Newton Street (between A6 Dale Street and Hilton Street)	NB	0	0	0	0	0	0	0%	0%
	SB	122	4	167	4	45	0	37%	0%
A665 Great Ancoats Street (between Laystall Street and Urban Exchange car park access)	NB	1,321	26	1,047	23	-274	-3	-21%	-12%
	SB	1,451	25	1,427	23	-24	-2	-2%	-8%
Hilton Street (between A62 Newton Street and Port Street)	EB	0	0	0	0	0	0	0%	0%
	WB	375	2	321	2	-54	0	-14%	0%
Old Mill Street (between A665 Great Ancoats Street and Carruthers Street)	EB	713	4	604	3	-109	-1	-15%	-25%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	242	2	187	2	-55	0	-23%	0%
Hilton Street/Stevenson Square (between A62 Lever Street and A62 Newton Street)	EB	0	0	0	0	0	0	0%	0%
	WB	329	0	295	0	-34	0	-10%	0%
A662 Merrill Street (between Carruthers Street and Every Street)	EB	303	0	185	0	-118	0	-39%	0%
	WB	0	0	1	0	1	0	0%	0%
Hilton Street (between Oldham Street and A62 Lever Street)*	EB	0	0	0	0	0	0	0%	0%
	WB	332	3	297	3	-35	0	-11%	0%
Port Street (between Hilton Street and A665 Great Ancoats Street)	EB	187	0	262	0	75	0	40%	0%
A62 Newton Street (between Hilton Street and A665 Great Ancoats Street)	NB	47	2	26	2	-21	0	-45%	0%
	SB	122	4	167	4	45	0	37%	0%
Red Lion Street (between A6 Church Street and Turner Street)	NB	90	0	104	0	14	0	16%	0%
Hilton Street (between Tib Street and Oldham Street)*	EB	0	0	0	0	0	0	0%	0%
	WB	330	0	295	0	-35	0	-11%	0%
Turner Street (between Red Lion Street and John Street)	EB	90	0	104	0	14	0	16%	0%
John Street (between Turner Street and Thomas Street)	NB	90	0	104	0	14	0	16%	0%
Old Mill Street (between Carruthers Street and Butler Street)	EB	717	12	548	9	-169	-3	-24%	-25%
	WB	438	4	308	3	-130	-1	-30%	-25%
Thomas Street (between John Street and High Street)	NB	428	1	474	1	46	0	11%	0%
Shudehill (between Dantzic Street and A664 Nicholas Croft)	EB	126	32	219	33	93	1	74%	3%
	WB	250	59	249	57	-1	-2	0%	-3%
Thomas Street (between Shudehill and High Street)	SB	486	38	388	37	-98	-1	-20%	-3%
A665 Swan Street (between Oldham Street and Tib Street)	WB	1,406	22	1,230	21	-176	-1	-13%	-5%
Withy Grove (between A6042 Corporation Street and Dantzic Street)	EB	126	32	219	33	93	1	74%	3%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	250	59	249	57	-1	-2	0%	-3%
A664 Shudehill (between A664 Nicholas Croft and Thomas Street)	EB	291	73	383	71	92	-2	32%	-3%
	WB	43	43	43	43	0	0	0%	0%
A664 Shudehill (between Thomas Street and Bus Station Entry)	EB	211	84	215	82	4	-2	2%	-2%
	WB	386	30	196	28	-190	-2	-49%	-7%
Bradford Road (between Cambrian Street and Butler Street)	EB	568	22	515	21	-53	-1	-9%	-5%
	WB	446	10	357	9	-89	-1	-20%	-10%
A6042 Corporation Street (between Withy Grove and Todd Street)	NB	250	59	249	57	-1	-2	0%	-3%
	SB	126	32	219	33	93	1	74%	3%
A664 Shudehill (between Bus Station Entry and Hanover Street)	EB	175	48	180	46	5	-2	3%	-4%
	WB	402	45	211	43	-191	-2	-48%	-4%
A665 Swan Street (between Tib Street and A664 Rochdale Road)	WB	1,397	21	1,156	20	-241	-1	-17%	-5%
A6042 Corporation Street (between Todd Street and Hanover Street)	NB	260	3	270	3	10	0	4%	0%
	SB	9	1	74	2	65	1	722%	100%
A664 Shudehill (between Hanover Street and A665 Swan Street)	EB	363	59	365	57	2	-2	1%	-3%
	WB	544	48	344	46	-200	-2	-37%	-4%
A6042 Corporation Street (between Hanover Street and Long Millgate)	NB	260	3	270	3	10	0	4%	0%
	SB	172	1	237	2	65	1	38%	100%
Butler Street (between A62 Oldham Road and Old Mill Street)	EB	199	13	172	13	-27	0	-14%	0%
	WB	315	10	223	8	-92	-2	-29%	-20%
A6042 Corporation Street (between Long Millgate and A665 Cheetham Hill Road)	NB	260	3	270	3	10	0	4%	0%
	SB	172	1	237	2	65	1	38%	100%
Elton Street (between Alexandra Street and Cottenham Lane)	EB	34	0	45	0	11	0	32%	0%

Location	Direction	2038 future baseline flows		2038 Proposed Scheme flows		Proposed Scheme - actual flow change from 2038 baseline		Proposed Scheme - % change from 2038 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	WB	188	6	208	6	20	0	11%	0%
Cottenham Lane/Sherbourne Street West (between Edward Street and A56 Bury New Road)	EB	34	0	45	0	11	0	32%	0%
	WB	188	6	208	6	20	0	11%	0%
Collyhurst Road (between Dalton Street and Smedley Road)	NB	182	2	156	2	-26	0	-14%	0%
	SB	118	1	112	1	-6	0	-5%	0%
A6010 Hulme Hall Lane (between A62 Oldham Road and Drewett Street)	NB	752	19	756	21	4	2	1%	11%
	SB	834	12	732	13	-102	1	-12%	8%

** Some traffic movements may not be precisely reflected due to the simplified way in which the road network is represented in the strategic traffic models, however, this is not expected to change the conclusions of the assessment.*

Table 18-263: MA08 impacted links, 2046 PM peak

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A635 Fairfield Street diversion (between A635 Ashton Old Road realignment and A665 Chancellor Lane diversion)	NB	1,174	16	-	-	-	-	-	-
	SB	856	8	2,218	35	1,362	27	159%	338%
Dover Street (between B5117 Oxford Road and A34 Upper Brook Street)	EB	428	9	420	4	-8	-5	-2%	-56%
	WB	262	4	238	3	-24	-1	-9%	-25%
A34 Grosvenor Street (between A34 Brook Street and A34 Oxford Road)	WB	256	9	205	9	-51	0	-20%	0%
Higher Ardwick (between Ardwick Green North and Union Street)	NB	492	8	399	6	-93	-2	-19%	-25%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	393	3	391	9	-2	6	-1%	200%
Grosvenor Street (between A6 Downing Street and A34 Brook Street)	WB	384	4	315	2	-69	-2	-18%	-50%
Union Street (between Dark Lane and Higher Ardwick)	NB	144	6	45	4	-99	-2	-69%	-33%
	SB	238	2	213	7	-25	5	-11%	250%
Sackville Street (between A57(M) Mancunian Way and Charles Street)	NB	817	1	872	1	55	0	7%	0%
A6 London Road (between Travis Street and Altrincham Street)	NB	264	37	277	37	13	0	5%	0%
	SB	681	46	560	39	-121	-7	-18%	-15%
A665 Pin Mill Brow realignment (between A635 Ashton Old Road realignment and A635 Mancunian Way northbound realignment)	NB	1,433	17	0	0	-1,433	-17	-100%	-100%
	SB	981	8	2,986	47	2,005	39	204%	488%
A635 Mancunian Way northbound realignment (between A635 Fairfield Street diversion and A665 Pin Mill Brow realignment)	NB	1,044	16	2,807	47	1,763	31	169%	194%
	SB	832	12	0	0	-832	-12	-100%	-100%
B6469 Whitworth Street (between A34 Princess Street and Sackville Street)	EB	293	6	229	6	-64	0	-22%	0%
	WB	202	5	190	5	-12	0	-6%	0%
B6469 Fairfield Street (between Travis Street and St Andrew's Street diversion)	EB	53	9	507	15	454	6	857%	67%
	WB	138	9	620	16	482	7	349%	78%
St. Andrew's Street diversion (between B6469 Fairfield Street diversion and Helmet Street)	NB	0	0	652	7	652	7	0%	0%
	SB	89	0	427	6	338	6	380%	0%
A6 London Road (between Altrincham Street and B6469 Fairfield Street)	NB	264	37	277	37	13	0	5%	0%
	SB	681	46	560	39	-121	-7	-18%	-15%
B6469 Fairfield Street (between A6 London Road and Travis Street)	EB	273	14	615	14	342	0	125%	0%
	WB	417	14	415	13	-2	-1	0%	-7%
B6469 Whitworth Street (between Sackville Street and Chorlton Street)	EB	553	11	512	11	-41	0	-7%	0%
	WB	862	15	758	16	-104	1	-12%	7%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
A665 Pin Mill Brow realignment (between A635 Mancunian Way northbound realignment and Palmerston Street)	NB	2,477	33	1,785	23	-692	-10	-28%	-30%
	SB	1,813	20	1,965	22	152	2	8%	10%
Bloom Street (between Sackville Street and A34 Princess Street)	NB	121	0	173	0	52	0	43%	0%
	SB	266	2	277	2	11	0	4%	0%
St. Andrew's Street (between B6469 Fairfield Street and Adair Street)	EB	0	0	108	0	108	0	0%	0%
	WB	89	0	9	0	-80	0	-90%	0%
Adair Street (between New Sheffield Street and Station Car Park Access)	EB	429	7	0	0	-429	-7	-100%	-100%
	WB	631	11	431	6	-200	-5	-32%	-47%
A665 Great Ancoats Street (between Helmet Street and Every Street)	NB	2,388	32	1,884	23	-504	-9	-21%	-28%
	SB	1,671	16	1,748	19	77	3	5%	19%
A6 Aytoun Street (between A6 Whitworth Street and Minshull Street)	NB	471	57	394	55	-77	-2	-16%	-4%
New Sheffield Street (between Baird Street and Adair Street)	EB	221	1	91	0	-130	-1	-59%	-100%
	WB	81	1	526	2	445	1	549%	100%
A6 London Road (between Auburn Street and B6469 Fairfield Street)	SB	867	42	1,027	39	160	-3	18%	-7%
Store Street (between New Sheffield Street and Boad Street)	EB	369	3	167	1	-202	-2	-55%	-67%
	WB	381	2	0	0	-381	-2	-100%	-100%
A665 Great Ancoats Street (between Every Street and Adair Street)	NB	1,916	18	1,472	14	-444	-4	-23%	-22%
	SB	1,056	17	1,197	21	141	4	13%	24%
Chorlton Street (between A5103 Portland Street and Major Street)	EB	218	26	246	26	28	0	13%	0%
	WB	335	6	369	6	34	0	10%	0%
Adair Street (between St. Andrew's Square and A665 Great Ancoats Street)	NB	506	4	0	0	-506	-4	-100%	-100%
	SB	220	3	431	6	211	3	96%	94%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Palmerston Street (between A665 Great Ancoats Street and Gurney Street)	EB	184	0	67	0	-117	0	-64%	0%
	WB	326	3	284	3	-42	0	-13%	0%
A665 Great Ancoats Street (between Adair Street and A662 Pollard Street)	NB	2,422	22	1,735	18	-687	-4	-28%	-18%
	SB	1,276	19	1,265	19	-11	0	-1%	0%
B6181 Ducie Street (between A6 London Road and New Sheffield Street)	EB	372	1	374	1	2	0	1%	0%
	WB	256	1	372	1	116	0	45%	0%
B6181 Ducie Street (between New Sheffield Street and B6181 Dale Street)	EB	372	1	542	2	170	1	46%	100%
	WB	256	1	325	1	69	0	27%	0%
A6 Piccadilly (between B6181 Ducie Street and Paton Street)	NB	7	7	7	7	0	0	0%	0%
	SB	255	39	375	34	120	-5	47%	-13%
A665 Great Ancoats Street (between Pollard Street and Chapeltown Street)	NB	2,360	27	1,828	24	-532	-3	-23%	-11%
	SB	1,394	23	1,358	23	-36	0	-3%	0%
Every Street (between A665 Great Ancoats Street and Carruthers Street)	NB	391	26	316	20	-75	-6	-19%	-23%
	SB	547	11	492	11	-55	0	-10%	0%
B6181 Dale Street (between B6181 Ducie Street and Paton Street)	NB	590	1	590	2	0	1	0%	100%
	SB	319	2	145	2	-174	0	-55%	0%
Paton Street (between B6181 Dale Street and A6 Piccadilly)	WB	208	4	323	1	115	-3	55%	-75%
A665 Great Ancoats Street (between Chapeltown Street and Store Street)	NB	2,370	28	1,822	24	-548	-4	-23%	-14%
	SB	1,394	23	1,358	23	-36	0	-3%	0%
Fountain Street (between Spring Gardens and York Street)	NB	243	1	316	1	73	0	30%	0%
Ducie Street (between B6181 Dale Street and Peak Street)	NB	408	2	298	1	-110	-1	-27%	-50%
Ducie Street (between A665 Great Ancoats Street and Peak Street)	WB	563	1	526	0	-37	-1	-7%	-100%
B6181 Dale Street (between Paton Street and Port Street)	NB	314	2	427	2	113	0	36%	0%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	342	3	379	2	37	-1	11%	-33%
A665 Great Ancoats Street (between Store Street and Ducie Street)	NB	2,040	28	1,572	25	-468	-3	-23%	-11%
	SB	1,559	24	1,362	24	-197	0	-13%	0%
A665 Great Ancoats Street (between Ducie Street and Laystall Street)	NB	1,509	27	1,186	24	-323	-3	-21%	-11%
	SB	1,591	24	1,502	24	-89	0	-6%	0%
B6181 Dale Street (between A62 Newton Street and Port Street)	EB	342	3	379	2	37	-1	11%	-33%
Tariff Street (between Brewer Street and Laystall Street)	EB	0	0	81	0	81	0	0%	0%
	WB	257	0	249	0	-8	0	-3%	0%
Port Street (between B6181 Dale Street and Hilton Street)	EB	314	2	427	2	113	0	36%	0%
A62 Newton Street (between A6 Dale Street and Hilton Street)	NB	0	0	0	0	0	0	0%	0%
	SB	121	6	167	3	46	-3	38%	-50%
A665 Great Ancoats Street (between Laystall Street and Urban Exchange car park access)	NB	1,346	26	1,046	23	-300	-3	-22%	-12%
	SB	1,520	25	1,460	25	-60	0	-4%	0%
Hilton Street (between A62 Newton Street and Port Street)	EB	0	0	0	0	0	0	0%	0%
	WB	391	2	332	2	-59	0	-15%	0%
Old Mill Street (between A665 Great Ancoats Street and Carruthers Street)	EB	698	3	610	3	-88	0	-13%	0%
	WB	239	2	189	2	-50	0	-21%	0%
A662 Merrill Street (between Carruthers Street and Every Street)	EB	317	1	200	1	-117	0	-37%	0%
	WB	0	0	11	1	11	1	0%	0%
A665 Great Ancoats Street (between Urban Exchange car park access and Port Street)	NB	1,210	28	950	24	-260	-4	-21%	-14%
	SB	1,441	25	1,383	23	-58	-2	-4%	-8%
Port Street (between Hilton Street and A665 Great Ancoats Street)	EB	180	0	262	0	82	0	46%	0%
Red Lion Street (between A6 Church Street and Turner Street)	NB	85	0	102	0	17	0	20%	0%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
Turner Street (between Red Lion Street and John Street)	EB	85	0	102	0	17	0	20%	0%
John Street (between Turner Street and Thomas Street)	NB	85	0	102	0	17	0	20%	0%
Old Mill Street (between Carruthers Street and Butler Street)	EB	724	14	592	11	-132	-3	-18%	-21%
	WB	446	4	340	3	-106	-1	-24%	-25%
Thomas Street (between John Street and High Street)	NB	416	1	460	1	44	0	11%	0%
Shudehill (between Dantzic Street and A664 Nicholas Croft)	EB	125	33	227	33	102	0	82%	0%
	WB	247	59	253	57	6	-2	2%	-3%
Thomas Street (between Shudehill and High Street)	SB	513	38	415	37	-98	-1	-19%	-3%
A665 Swan Street (between Oldham Street and Tib Street)	WB	1,427	22	1,240	21	-187	-1	-13%	-5%
Withy Grove (between A6042 Corporation Street and Dantzic Street)	EB	125	33	227	33	102	0	82%	0%
	WB	247	59	253	57	6	-2	2%	-3%
A664 Shudehill (between A664 Nicholas Croft and Thomas Street)	EB	292	72	389	71	97	-1	33%	-1%
	WB	43	43	43	43	0	0	0%	0%
A664 Shudehill (between Thomas Street and Bus Station Entry)	EB	213	83	215	81	2	-2	1%	-2%
	WB	414	29	216	28	-198	-1	-48%	-3%
Bradford Road (between Cambrian Street and Butler Street)	EB	562	24	507	22	-55	-2	-10%	-8%
	WB	459	10	386	9	-73	-1	-16%	-10%
A6042 Corporation Street (between Withy Grove and Todd Street)	NB	247	59	253	57	6	-2	2%	-3%
	SB	125	33	227	33	102	0	82%	0%
A664 Shudehill (between Bus Station Entry and Hanover Street)	EB	176	47	179	46	3	-1	2%	-2%
	WB	429	44	231	43	-198	-1	-46%	-2%
A665 Swan Street (between Tib Street and A664 Rochdale Road)	WB	1,424	22	1,182	20	-242	-2	-17%	-9%
A6042 Corporation Street (between Todd Street and Hanover Street)	NB	262	3	278	3	16	0	6%	0%

Location	Direction	2046 future baseline flows		2046 Proposed Scheme flows		Proposed Scheme - actual flow change from 2046 baseline		Proposed Scheme - % change from 2046 baseline	
		All vehicles	HGV	All vehicles	HGV	All vehicles	HGV	All vehicles	HGV
	SB	6	2	82	2	76	0	1267%	0%
A664 Shudehill (between Hanover Street and A665 Swan Street)	EB	367	59	368	57	1	-2	0%	-3%
	WB	578	47	373	45	-205	-2	-35%	-4%
A6042 Corporation Street (between Hanover Street and Long Millgate)	NB	262	3	278	3	16	0	6%	0%
	SB	169	2	245	2	76	0	45%	0%
Butler Street (between A62 Oldham Road and Old Mill Street)	EB	213	13	196	13	-17	0	-8%	0%
	WB	355	10	271	9	-84	-1	-24%	-10%
A6042 Corporation Street (between Long Millgate and A665 Cheetham Hill Road)	NB	262	3	278	3	16	0	6%	0%
	SB	169	2	245	2	76	0	45%	0%

Figure 18-88: MA08 traffic flow changes, 2038 AM peak

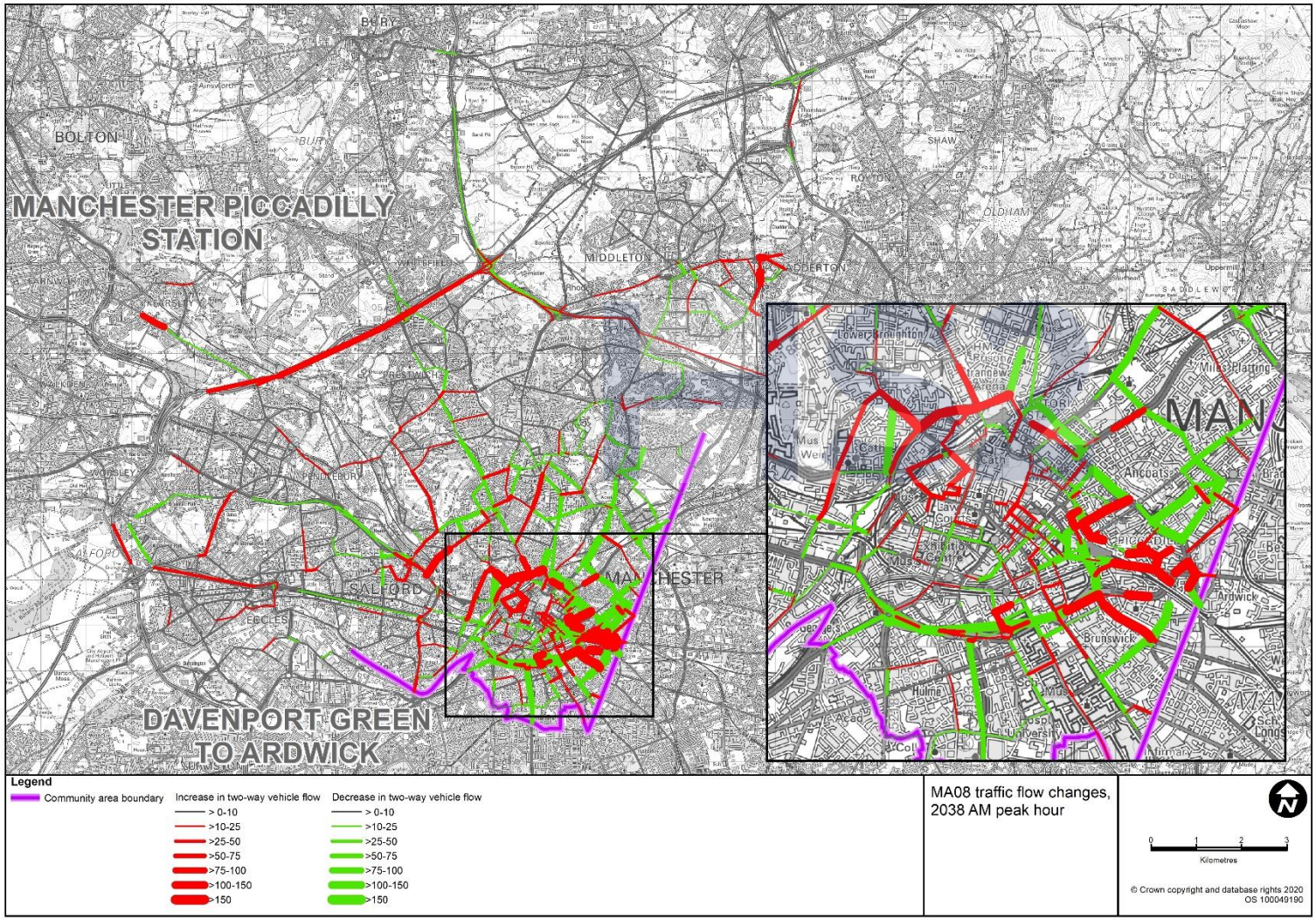


Figure 18-89: MA08 traffic flow changes, 2038 PM peak

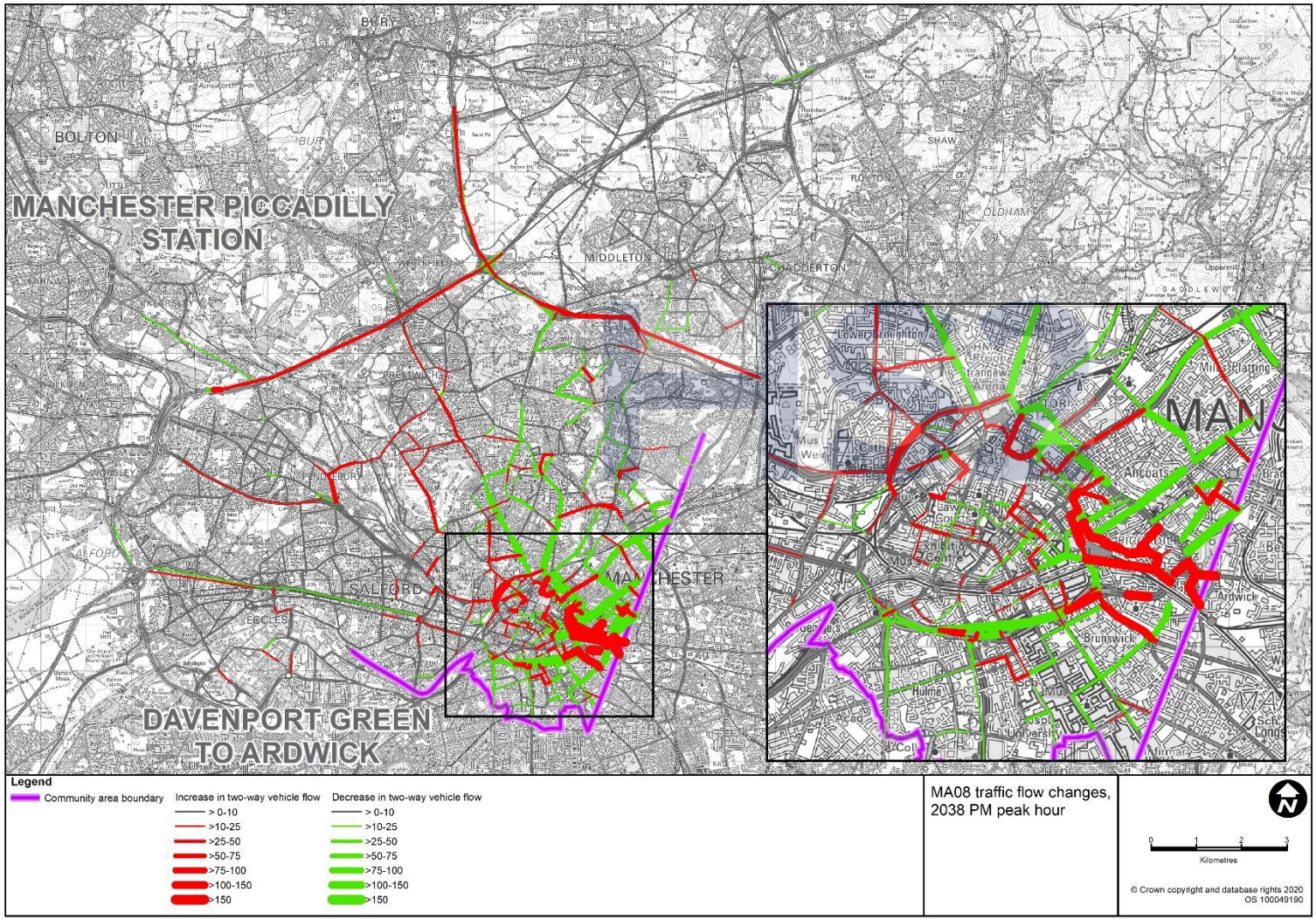


Figure 18-90: MA08 traffic flow changes, 2046 AM peak

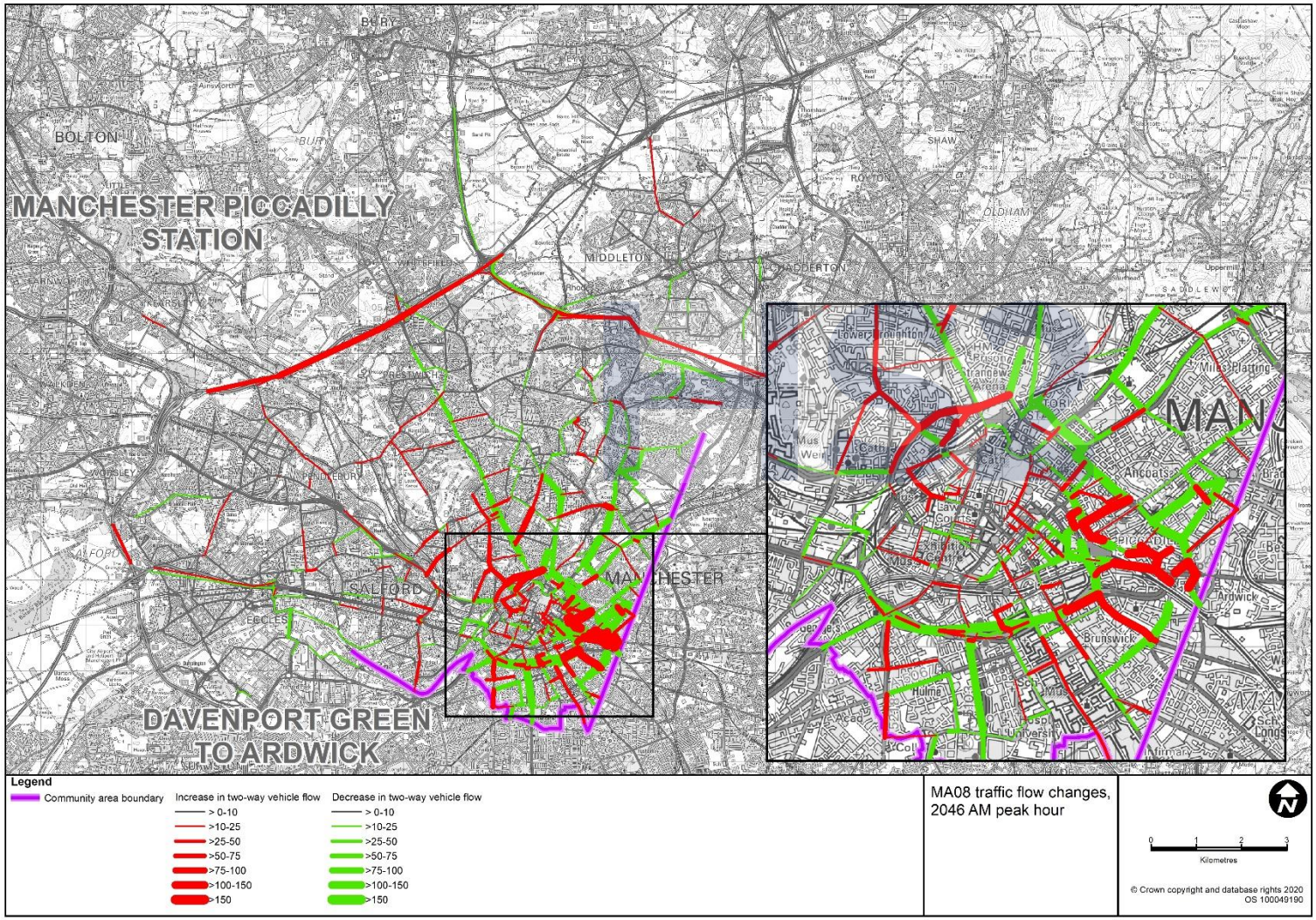
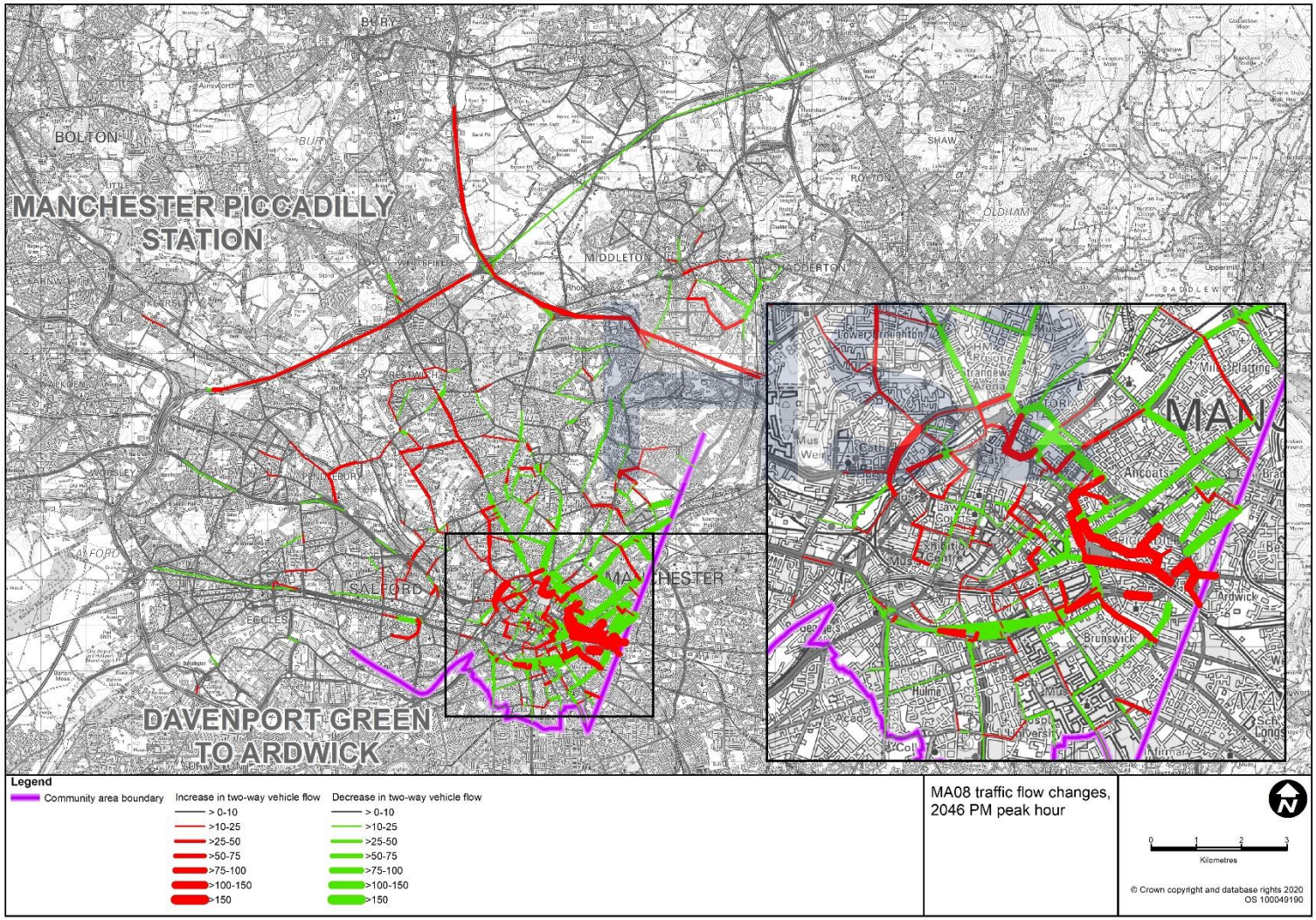


Figure 18-91: MA08 traffic flow changes, 2046 PM peak



Junction performance

18.5.111 Junction capacity analysis has been undertaken for the weekday AM and PM peak hours comparing junction operation in the 2038 and 2046 future baseline with 2038 and 2046 with HS2.

18.5.112 The following tables and commentary set out the performance at junctions where there is the potential for the Proposed Scheme to have substantial impacts, including new junctions and those where changes are proposed.

MA06

18.5.113 The results for the MA06 area are presented from south to north through the MA06 area, firstly for junctions on the strategic road network, followed by junctions on other roads. The 2038 and 2046 future baseline results are included for comparison. The models developed to assess the existing and future baseline have been used, except where otherwise stated.

18.5.114 The junction assessed in the following section are:

- M56 junction 6;
- A538 Hale Road/A538 Hale Road realignment;
- A538 Hale Road realignment/station access west;
- A538 Hale Road realignment/station access east;
- Enterprise Way/Outwood Lane West/World Way;
- A56 Dunham Road/A556/A556 Chester Road/A56 Lymm Road (Bowdon Roundabout);
- Enterprise Way/Thorley Lane/Bailey Lane;
- B5086 Knutsford Road/B5085 Brook Lane/Russet Way/B5085 Knutsford Road;
- B5086 Alderley Road/B5086 Knutsford Road/Alderley Road/Alderley Lodge/Bedells Lane (B5086 Fulshaw Cross Roundabout);
- A538 Water Lane/A538 Alderley Road/B5086 Alderley Road;
- A34 MacLean Way/A34 Birrell Way/A538 Bollin Valley Link (A34 Bollin Valley Roundabout);
- Ashley Road diversion/Mobberley Road realignment;
- A538 Wilmslow Road/Mill Lane;
- Castle Mill Lane/Brickhill Lane diversion;
- Castle Mill Lane/Back Lane;
- Ashley Road/Back Lane/Mobberley Road/Cow Lane;
- Chicago Avenue/Malaga Avenue;
- World Way/Chicago Avenue/Palma Avenue;
- Tithebarn Road/High Elm Road/Chapel Road;
- A538 Hale Road/Elmridge Drive;

- A538 Hale Road/Shay Lane;
- Runger Lane/Thorley Lane;
- A5144 Delahays Road/A538 Hale Road/B5162 Park Road;
- A538 Hale Road/Westminster Road;
- A5154 Delahays Road/Grove Lane;
- A56 Dunham Road/B5160 Park Road/B5160 Charcoal Road;
- A538 Hale Road/Ashfield Road/Victoria Road;
- A5144 Thorley Lane/Clay Lane/Wood Lane;
- A56 Old Market Place/Kingsway;
- Oldfield Road/Gorsey Lane;
- A560 Shaftesbury Avenue/A560 Stockport Road/Moss Lane/Wood Lane;
- A56 Manchester Road/B5164 Barrington Road;
- A560 Shaftesbury Avenue/Aimson Road East; and
- A56 Manchester Road/B5165 Park Road/Woodcote Road.

M56 junction 6

18.5.115 The M56 junction 6/A538 Wilmslow Road/Runger Lane/Hale Road network will be modified as part of the Proposed Scheme. The M56 junction 6 (east) will be a four-arm signal controlled crossroads junction with an additional lane on the A538 Wilmslow Road east and west approaches. The M56 junction 6 (west) will be a four-arm signal controlled crossroads junction and will form the south-west junction of the new A538 Hale Road/Station Access gyratory. At this junction, the A538 Hale Road realignment and the A538 Hale Road (west) will be one-way entry arms into the junction. Figure 18-92 shows the junction layouts introduced as part of the Proposed Scheme. The operation of the junctions has been assessed for the 2038 and 2046 AM and PM peak hours with the Proposed Scheme using Linsig software.

18.5.116 A summary of performance for the main approaches is show in Table 18-264, while the results for each lane of the western and eastern sides of the junction are included in Table 18-265 and Table 18-266.

Figure 18-92: Junction layout diagram (M56 junction 6 permanent layout)

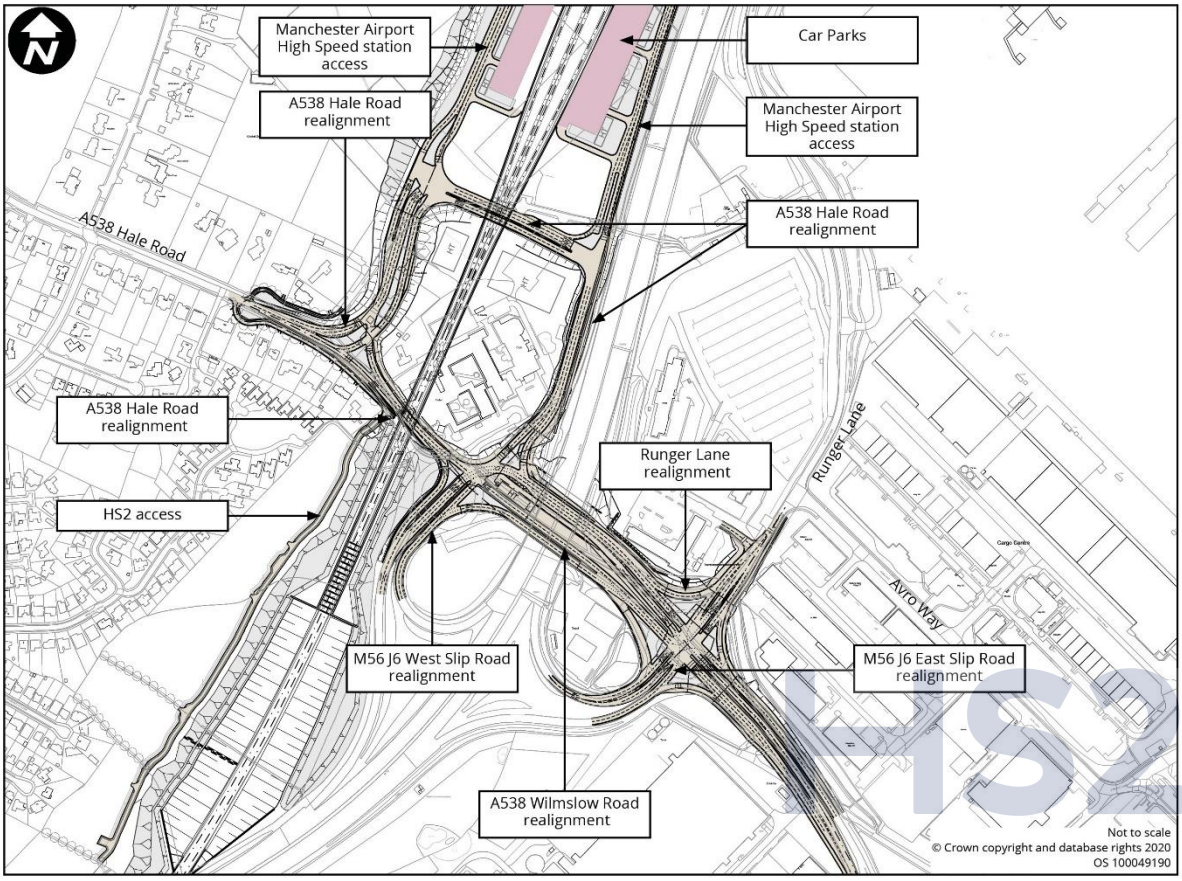


Table 18-264: M56 junction 6 key approaches 2038 and 2046 future baseline and with the Proposed Scheme junction capacity assessment

Junction/approach		Flow, PCU/hr	Max DoS	Total Q, PCU	Flow, PCU/hr	Max DoS	Total Q, PCU	Flow, PCU/hr	Max DoS	Total Q, PCU	Flow, PCU/hr	Max DoS	Total Q, PCU
08:00–09:00		**2038 future baseline (Manchester Airport Rainbow Works layout)**			**2038 with the Proposed Scheme (permanent layout)**			**2046 future baseline (Manchester Airport Rainbow Works layout)**			**2046 with the Proposed Scheme (permanent layout)**		
West	A538 Hale Road	1,394	108%	95	2,285	99%	56	1,635	147%	255	2,586	102%	75
	Hotel Access	73	92%	7	-	-	-	74	94%	7	-	-	-
	A538 Wilmslow Road	1,120	56%	24	1,365	104%	44	1,192	59%	25	1,447	129%	115
	M56 off-slip	1,078	105%	44	1,521	101%	41	1,142	142%	155	1,643	100%	43
East	Runger Lane	1,174	65%	11	633	77%	20	1,150	65%	12	619	89%	23
	A538 Wilmslow Road (east)	1,088	100%	37	1,115	75%	20	1,179	102%	44	1,207	76%	22
	M56 off-slip	1,735	98%	45	1,907	86%	33	1,825	99%	55	2,003	98%	43
	A538 Wilmslow Road (west)	1,744	94%	50	1,976	79%	34	2,085	95%	57	2,337	98%	64
17:00 – 18:00		**2038 future baseline (Manchester Airport Rainbow Works layout)**			**2038 with the Proposed Scheme (permanent layout)**			**2046 future baseline (Manchester Airport Rainbow Works layout)**			**2046 with the Proposed Scheme (permanent layout)**		
West	A538 Hale Road	978	82%	18	1,862	94%	37	991	93%	26	1,918	104%	55
	Hotel Access	149	83%	10	-	-	-	147	87%	10	-	-	-
	A538 Wilmslow Road	1,264	72%	20	1,397	92%	26	1,554	90%	29	1,609	105%	49
	M56 off-slip	850	78%	19	1,099	90%	20	1,042	92%	26	1,323	104%	42
East	Runger Lane	2,150	103%	42	1,099	90%	30	2,846	108%	70	1,447	102%	49
	A538 Wilmslow Road (east)	1,275	104%	55	1,290	77%	27	1,322	128%	166	1,334	85%	29
	M56 off-slip	1,397	100%	42	1,492	87%	30	1,485	99%	49	1,580	97%	42
	A538 Wilmslow Road (west)	1,166	96%	37	1,665	79%	36	1,437	91%	42	1,913	90%	45

18.5.117 At the western junction in the 2038 AM peak hour, the change in traffic due to operation of the Proposed Scheme will decrease the maximum DoS from 108% in the 2038 future baseline to 99% with the Proposed Scheme in 2038 on the A538 Hale Road approach, with a corresponding change in queue length from 95 PCU in the future baseline to 56 PCU. However, the change in traffic due to operation of the Proposed Scheme will increase the DoS from 56% in the 2038 future baseline to 104% with the Proposed Scheme in 2038 on the A538 Wilmslow Road approach in the AM peak hour. Queue length will increase from 24 PCU in the future baseline to 44 PCU with the Proposed Scheme.

18.5.118 At the western junction in the 2038 PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the DoS on the A538 Hale Road approach from 82% in the 2038 future baseline to 94% with the Proposed Scheme, with a corresponding change in queue length from 18 PCU in the future baseline to 37 PCU. The change in traffic due to operation of the Proposed Scheme will also increase the DoS on the A538 Wilmslow Road approach from 72% in the 2038 future baseline to 92% with the Proposed Scheme, with a corresponding change in queue length from 20 PCU in the future baseline to 26 PCU. Finally, the change in traffic due to operation of the Proposed Scheme will increase the DoS on the M56 off-slip approach from 78% in the 2038 future baseline to 90% with the Proposed Scheme, with a corresponding change in queue length from 19 PCU in the future baseline to 20 PCU.

18.5.119 In 2038, the assessment shows that in the AM peak hour the western junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates within capacity in the future baseline and close to capacity with the Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour, which is, however, predicted to operate above its capacity in the future baseline.

18.5.120 At the eastern junction in the 2038 AM peak hour, the change in traffic due to operation of the Proposed Scheme will decrease the maximum DoS from 100% in the 2038 future baseline to 75% with the Proposed Scheme in 2038 on the A538 Wilmslow Road (east) approach, with a corresponding change in queue length from 37 PCU in the future baseline to 30 PCU. In the PM peak hour, the change in traffic due to operation of the Proposed Scheme will decrease the maximum DoS from 104% in the 2038 future baseline to 77% with the Proposed Scheme in 2038 on the A538 Wilmslow Road (east) approach, with a corresponding change in queue length from 55 PCU in the future baseline to 27 PCU.

18.5.121 In 2038, the assessment shows that in the AM and PM peak hour the eastern junction operates over capacity in the future baseline and close to capacity with the Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction.

18.5.122 At the western junction in the 2046 AM peak hour, the change in traffic due to operation of the Proposed Scheme will decrease the maximum DoS from 147% in the 2046 future baseline to 102% with the Proposed Scheme in 2046 on the A538 Hale Road approach, with a corresponding change in queue length from 255 PCU in the future baseline to 75 PCU.

However, the change in traffic due to operation of the Proposed Scheme will increase the DoS from 59% in the 2046 future baseline to 129% with the Proposed Scheme in 2046 on the A538 Wilmslow Road approach in the AM peak hour. Queue length will increase from 25 PCU in the future baseline to 115 PCU with the Proposed Scheme.

18.5.123 At the western junction in the 2046 PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the DoS on the A538 Hale Road approach from 93% in the 2046 future baseline to 104% with the Proposed Scheme, with a corresponding change in queue length from 26 PCU in the future baseline to 55 PCU. The change in traffic due to operation of the Proposed Scheme will also increase the DoS on the A538 Wilmslow Road approach from 90% in the 2046 future baseline to 105% with the Proposed Scheme, with a corresponding change in queue length from 29 PCU in the future baseline to 49 PCU. Finally, the change in traffic due to operation of the Proposed Scheme will increase the DoS on the M56 off-slip approach from 92% in the 2046 future baseline to 104% with the Proposed Scheme, with a corresponding change in queue length from 26 PCU in the future baseline to 42 PCU.

18.5.124 In 2046, the assessment shows that in the AM peak hour the western junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and over capacity with the Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour, which is, however, predicted to operate above its capacity in the future baseline.

18.5.125 At the eastern junction in the 2046 AM peak hour, the change in traffic due to operation of the Proposed Scheme will decrease the DoS on the A538 Wilmslow Road (east) approach from 102% in the 2046 future baseline to 76% with the Proposed Scheme, with a corresponding change in queue length from 44 PCU in the future baseline to 22 PCU. However, the change in traffic due to operation of the Proposed Scheme will increase the DoS from 65% in the 2046 future baseline to 89% with the Proposed Scheme in 2046 on the Runger Lane approach in the AM peak hour. Queue length will increase from 12 PCU in the future baseline to 23 PCU with the Proposed Scheme. The change in traffic due to operation of the Proposed Scheme will also increase the DoS on the Wilmslow Road (west) approach from 95% in the 2046 future baseline to 98% with the Proposed Scheme, with a corresponding change in queue length from 57 PCU in the future baseline to 64 PCU.

18.5.126 At the eastern junction in the 2046 AM peak hour, the change in traffic due to operation of the Proposed Scheme will decrease the maximum DoS from 128% in the 2046 future baseline to 85% with the Proposed Scheme in 2046 on the A538 Wilmslow Road (east) approach, with a corresponding change in queue length from 166 PCU in the future baseline to 29 PCU.

18.5.127 In 2046, the assessment shows that in the AM peak hour the eastern junction operates over capacity in the future baseline and close to capacity with the Proposed Scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the

Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction.

Table 18-265: M56 junction 6 (west) 2038 and 2046 with the Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00–09:00	**2038 with the Proposed Scheme (permanent layout)**			**2046 with the Proposed Scheme (permanent layout)**		
A538 Hale Road realignment (nearside) (left)	630	53%	12	890	80%	22
A538 Hale Road realignment (offside) (left)	393	33%	7	370	33%	7
A538 Hale Road realignment (nearside) (ahead)	177	32%	4	190	34%	4
A538 Hale Road realignment (offside) (ahead)	550	99%	24	564	102%	29
A538 Wilmslow Road (east) (nearside) (left)	259	25%	1	260	25%	1
A538 Wilmslow Road (east) (offside) (left)	260	25%	1	262	25%	1
A538 Wilmslow Road (east) (nearside) (ahead)	198	32%	4	210	38%	5
A538 Wilmslow Road (east) (offside) (ahead)	648	104%	37	715	129%	108
M56 off-slip (nearside and offside) (left)	568	45%	7	566	43%	6
M56 off-slip (nearside) (right)	299	64%	8	374	70%	10
M56 off-slip (centre and offside) (right)	654	101%	27	703	100%	27
17:00–18:00	**2038 with the Proposed Scheme (permanent layout)**			**2046 with the Proposed Scheme (permanent layout)**		
A538 Hale Road realignment (nearside) (left)	306	25%	2	309	25%	3
A538 Hale Road realignment (offside) (left)	632	51%	7	718	59%	13
A538 Hale Road realignment (nearside) (ahead)	177	26%	3	166	26%	3
A538 Hale Road realignment (offside) (ahead)	632	94%	21	673	104%	38
A538 Wilmslow Road (east) (nearside) (left)	312	33%	1	361	37%	2
A538 Wilmslow Road (east) (offside) (left)	313	33%	2	363	38%	3
A538 Wilmslow Road (east) (nearside) (ahead)	239	41%	5	278	48%	6
A538 Wilmslow Road (east) (offside) (ahead)	533	92%	18	607	105%	38
M56 off-slip (nearside and offside) (left)	372	26%	3	437	31%	4
M56 off-slip (nearside) (right)	177	44%	4	241	57%	6
M56 off-slip (centre and offside) (right)	550	90%	13	645	104%	32

Table 18-266: M56 junction 6 (east) 2038 and 2046 with the Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00–09:00	**2038 with the Proposed Scheme (permanent layout)**			**2046 with the Proposed Scheme (permanent layout)**		
Runger Lane (nearside and centre 1) (left and ahead)	332	77%	6	277	89%	8
Runger Lane (centre 2) (ahead)	162	70%	5	171	82%	6
Runger Lane (centre 3 and offside) (right)	139	44%	9	171	64%	10

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
A538 Wilmslow Road (east) (nearside and centre 1) (left and ahead)	519	64%	7	573	63%	8
A538 Wilmslow Road (east) (centre 2 and offside) (ahead)	350	75%	7	382	76%	7
A538 Wilmslow Road (east) (nearside) (right)	123	42%	3	126	43%	3
A538 Wilmslow Road (east) (offside) (right)	123	42%	3	126	43%	3
M56 off-slip (nearside and centre) (left and ahead)	909	80%	15	958	82%	16
M56 off-slip (offside) (ahead)	242	52%	6	267	64%	7
M56 off-slip (nearside and offside) (right)	756	86%	12	778	98%	20
A538 Wilmslow Road (west) (nearside) (left)	498	79%	8	682	98%	27
A538 Wilmslow Road (west) (offside) (left)	498	73%	7	682	91%	18
A538 Wilmslow Road (west) (nearside) (ahead)	293	50%	4	301	47%	4
A538 Wilmslow Road (west) (offside) (ahead)	294	51%	6	302	47%	6
A538 Wilmslow Road (west) (nearside) (right)	197	34%	5	186	29%	4
A538 Wilmslow Road (west) (offside) (right)	196	34%	5	184	29%	4
17:00–18:00	**2038 with the Proposed Scheme (permanent layout)**			**2046 with the Proposed Scheme (permanent layout)**		
Runger Lane (nearside and centre 1) (left and ahead)	538	90%	13	633	102%	30
Runger Lane (centre 2) (ahead)	296	64%	8	372	73%	10
Runger Lane (centre 3 and offside) (right)	265	40%	9	442	64%	10
A538 Wilmslow Road (east) (nearside and centre 1) (left and ahead)	702	75%	12	722	85%	15
A538 Wilmslow Road (east) (centre 2 and offside) (ahead)	331	77%	8	351	77%	8
A538 Wilmslow Road (east) (nearside) (right)	129	44%	3	131	45%	3
A538 Wilmslow Road (east) (offside) (right)	128	44%	3	130	45%	3
M56 off-slip (nearside and centre) (left and ahead)	699	85%	16	756	94%	21
M56 off-slip (offside) (ahead)	107	26%	2	140	38%	3
M56 off-slip (nearside and offside) (right)	686	87%	11	684	97%	17
A538 Wilmslow Road (west) (nearside) (left)	250	54%	3	324	70%	4
A538 Wilmslow Road (west) (offside) (left)	251	51%	3	325	64%	4
A538 Wilmslow Road (west) (nearside) (ahead)	266	68%	5	273	68%	5
A538 Wilmslow Road (west) (offside) (ahead)	266	68%	7	273	70%	7
A538 Wilmslow Road (west) (nearside) (right)	316	79%	9	360	90%	13
A538 Wilmslow Road (west) (offside) (right)	316	79%	9	358	89%	12

A538 Hale Road/A538 Hale Road realignment

18.5.128 The A538 Hale Road/A538 Hale Road realignment will be a new junction as part of the Proposed Scheme. It will be a three-arm signal controlled T-junction and will form the south-west junction of the new A538 Hale Road/Station Access gyratory, associated with access to Manchester Airport High Speed Station. The A538 Hale Road (east) will be a one-way entry

arm into the junction. Figure 18-93 shows the junction layout introduced as part of the Proposed Scheme. Table 18-267 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Figure 18-93: Junction layout diagram (A538 Hale Road/A538 Hale Road realignment)

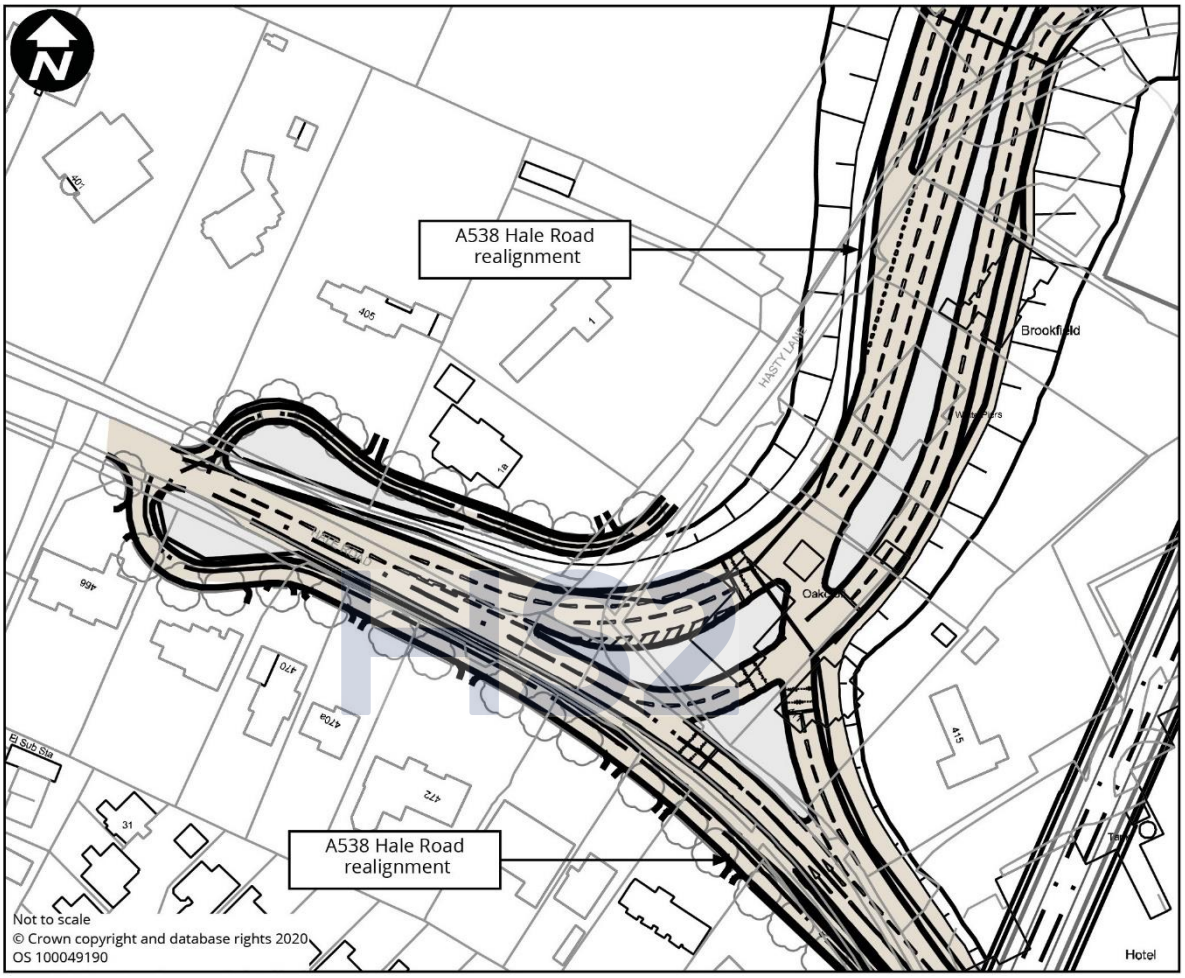


Table 18-267: A538 Hale Road/A538 Hale Road realignment 2038 and 2046 with the Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00–09:00	**2038 with the Proposed Scheme**			**2046 with the Proposed Scheme**		
A538 Hale Road realignment (nearside) (right)	24	3%	0	26	3%	0
A538 Hale Road realignment (offside) (right)	70	8%	0	78	8%	0
A538 Hale Road (east) (nearside) (ahead)	328	40%	5	340	51%	7
A538 Hale Road (east) (offside) (ahead)	331	37%	3	342	41%	5
A538 Hale Road (east) (nearside and offside) (right)	755	86%	21	809	99%	29
A538 Hale Road (west) (nearside and centre) (left)	667	83%	17	930	98%	34
A538 Hale Road (west) (offside) (left)	891	79%	11	902	70%	9
17:00–18:00	**2038 with the Proposed Scheme**			**2046 with the Proposed Scheme**		
A538 Hale Road realignment (nearside) (right)	50	6%	1	56	7%	1
A538 Hale Road realignment (offside) (right)	150	17%	2	166	19%	2
A538 Hale Road (east) (nearside) (ahead)	359	45%	7	421	51%	8
A538 Hale Road (east) (offside) (ahead)	362	42%	4	423	47%	5
A538 Hale Road (east) (nearside and offside) (right)	423	51%	5	478	54%	5
A538 Hale Road (west) (nearside and centre) (left)	267	32%	5	257	32%	5
A538 Hale Road (west) (offside) (left)	786	68%	8	822	72%	9

18.5.129 In 2038 with the Proposed Scheme, the assessment shows that the junction operates close to capacity in the AM peak hour with a maximum DoS of 86% on the nearside and offside lanes of the A538 Hale Road (east) (right) approach, with an associated queue of 21 PCU. In the PM peak hour, the assessment shows that this junction operates well within capacity with the Proposed Scheme.

18.5.130 In 2046 with the Proposed Scheme, the assessment shows that the junction operates close to capacity in the AM peak hour with a maximum DoS of 99% on the nearside and offside lanes of the A538 Hale Road (east) (right) approach, with an associated queue of 29 PCU. In the PM peak hour, the assessment shows that this junction operates well within capacity with the Proposed Scheme.

A538 Hale Road realignment/station access west

18.5.131 The A538 Hale Road realignment/station access west will be a new junction as part of the Proposed Scheme. It will be a three-arm signal controlled junction and will form the north-west junction of the new A538 Hale Road/Station Access gyratory, associated with access to Manchester Airport High Speed Station. Figure 18-94 shows the junction layout introduced as part of the Proposed Scheme. Table 18-268 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Figure 18-94: Junction layout diagram (A538 Hale Road realignment/station access west)

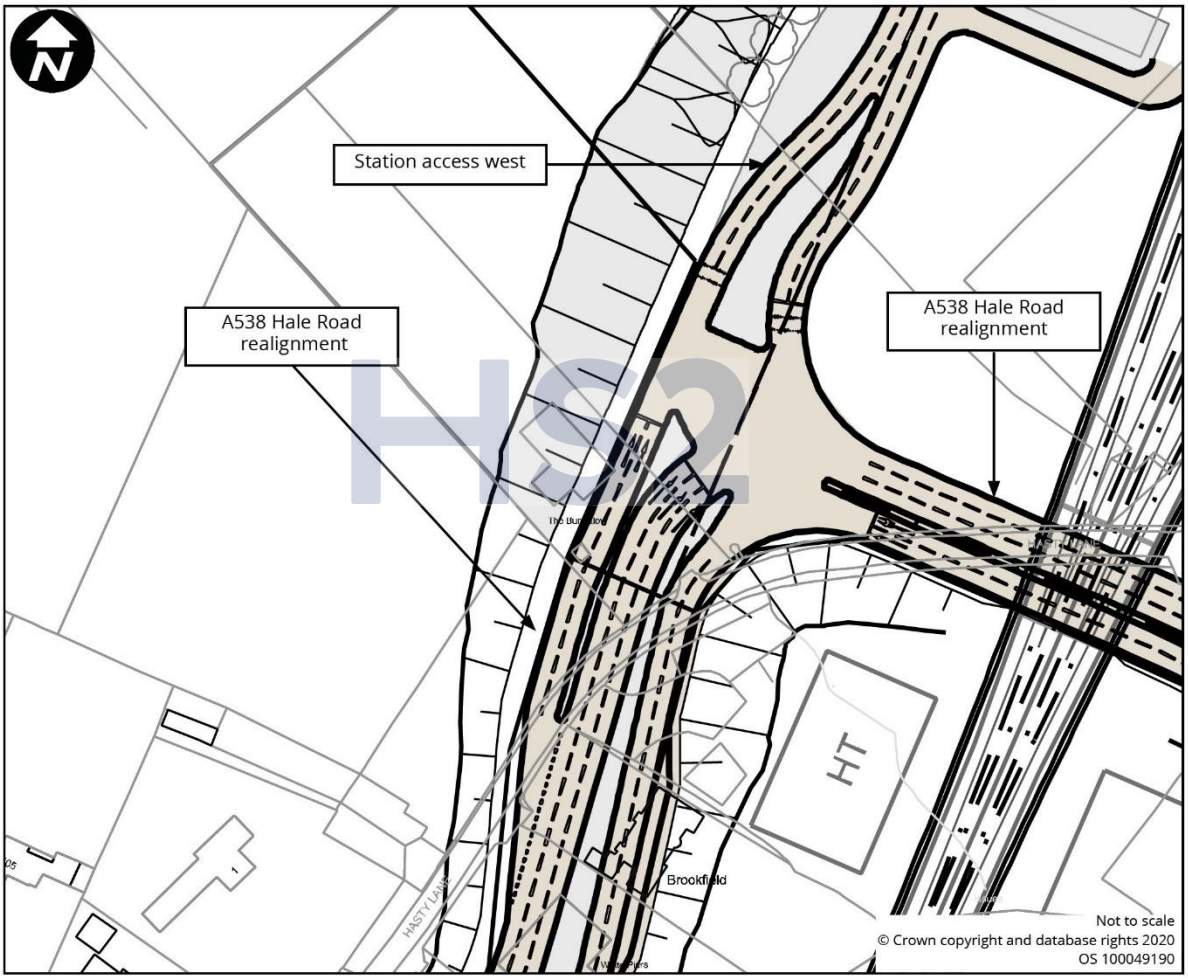


Table 18-268: A538 Hale Road realignment/station access west 2038 and 2046 with the Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00–09:00	**2038 with the Proposed Scheme**			**2046 with the Proposed Scheme**		
Manchester Airport High Speed Station access road west (nearside) (left)	116	57%	3	133	82%	5
Manchester Airport High Speed Station access road west (offside) (left and ahead)	116	52%	3	127	71%	4
A538 Hale Road realignment (east) (nearside) (left)	24	14%	1	26	16%	1
A538 Hale Road realignment (east) (offside) (left and right)	23	13%	1	26	15%	1
A538 Hale Road realignment (west) (nearside and offside) (ahead)	466	29%	1	521	28%	1
A538 Hale Road realignment (west) (nearside) (right)	956	80%	7	1218	95%	21
A538 Hale Road realignment (west) (centre) (right)	446	38%	1	451	37%	5
A538 Hale Road realignment (west) (offside) (right)	445	38%	1	451	37%	5
17:00–18:00	**2038 with the Proposed Scheme**			**2046 with the Proposed Scheme**		
Manchester Airport High Speed Station access road west (nearside) (left)	248	49%	6	278	55%	7
Manchester Airport High Speed Station access road west (offside) (left and ahead)	248	45%	6	277	50%	6
A538 Hale Road realignment (east) (nearside) (left)	50	30%	1	56	34%	1
A538 Hale Road realignment (east) (offside) (left and right)	50	28%	1	55	31%	1
A538 Hale Road realignment (west) (nearside and offside) (ahead)	259	20%	1	290	22%	1
A538 Hale Road realignment (west) (nearside) (right)	431	51%	5	445	52%	5
A538 Hale Road realignment (west) (centre) (right)	393	46%	9	411	49%	9
A538 Hale Road realignment (west) (offside) (right)	393	46%	9	411	49%	9

18.5.132 In 2038 with the Proposed Scheme, the assessment shows that the junction operates within capacity in the AM peak hour with a maximum DoS of 80% on the nearside lane of the A538 Hale Road realignment (west) (right) approach, with an associated queue of seven PCU. In the PM peak hour, the assessment shows that this junction operates well within capacity with the Proposed Scheme.

18.5.133 In 2046 with the Proposed Scheme, the assessment shows that the junction operates close to capacity in the AM peak hour with a maximum DoS of 95% on the nearside lane of the A538 Hale Road realignment (west) (right) approach, with an associated queue of 21 PCU. In the PM peak hour, the assessment shows that this junction operates well within capacity with the Proposed Scheme.

A538 Hale Road realignment/station access east

18.5.134 The A538 Hale Road realignment/station access east will be a new junction as part of the Proposed Scheme. It will be a three-arm signal controlled junction and will form the north-east junction of the new A538 Hale Road/Station Access gyratory, associated with access to Manchester Airport High Speed Station. The A538 Hale Road realignment (south) will be a one-way exit arm from the junction and is therefore not reported in the results. Figure 18-95 shows the junction layout introduced as part of the Proposed Scheme. Table 18-269 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Figure 18-95. Junction layout diagram (A538 Hale Road realignment/station access east)

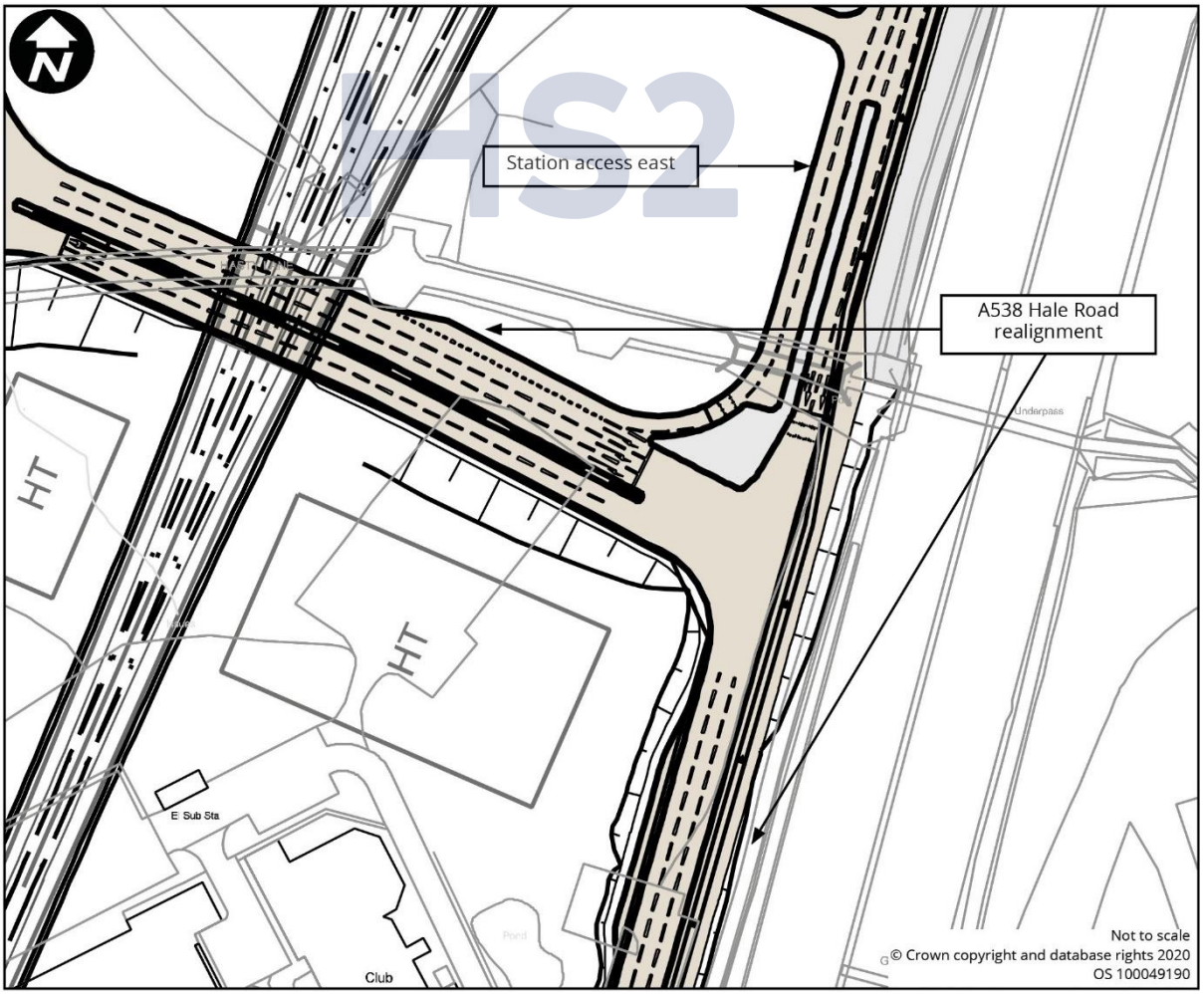


Table 18-269: A538 Hale Road realignment/station access east 2038 and 2046 with the Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00–09:00	**2038 with the Proposed Scheme**			**2046 with the Proposed Scheme**		
Manchester Airport High Speed Station access road west (nearside) (ahead)	72	21%	2	96	21%	2
Manchester Airport High Speed Station access road west (offside) (ahead and right)	159	45%	4	163	35%	4
A538 Hale Road realignment (nearside) (left)	466	25%	0	521	26%	0
A538 Hale Road realignment (centre 1) (right)	558	44%	1	794	67%	4
A538 Hale Road realignment (centre 2) (right)	494	40%	2	487	43%	1
A538 Hale Road realignment (offside) (right)	514	38%	2	526	42%	3
17:00–18:00	**2038 with the Proposed Scheme**			**2046 with the Proposed Scheme**		
Manchester Airport High Speed Station access road west (nearside) (ahead)	66	9%	1	70	9%	1
Manchester Airport High Speed Station access road west (offside) (ahead and right)	428	53%	9	485	62%	11
A538 Hale Road realignment (nearside) (left)	260	14%	0	289	15%	0
A538 Hale Road realignment (centre 1) (right)	240	28%	2	239	27%	2
A538 Hale Road realignment (centre 2) (right)	572	68%	6	606	71%	7
A538 Hale Road realignment (offside) (right)	541	59%	5	577	61%	5

18.5.135 The assessment shows that the junction operates well within capacity in 2038 and 2046 with the Proposed Scheme.

Enterprise Way/Outwood Lane West/World Way

18.5.136 Table 18-270 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046. The Outwood Lane West approach is a minor arm that is not included within the SATURN model.

Table 18-270: Enterprise Way/Outwood Lane West/World Way junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Enterprise Way	478	50%	1	484	53%	1	618	57%	1	640	63%	1
Outwood Lane West	-	-	-	-	-	-	-	-	-	-	-	-
World Way	1,100	57%	0	1,306	66%	1	1,385	78%	1	1,450	81%	1
A555 Airport Spur eastbound off-slip	1,788	114%	8	1,807	114%	8	1,452	118%	9	1,640	116%	9
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Enterprise Way	543	105%	8	556	105%	8	522	118%	7	578	123%	8
Outwood Lane West	-	-	-	-	-	-	-	-	-	-	-	-
World Way	1,486	83%	2	1,698	94%	3	1,783	95%	4	1,824	99%	8
A555 Airport Spur eastbound off-slip	1,788	104%	7	1,806	105%	7	1,750	109%	8	1,757	107%	8

18.5.137 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the change in traffic due to operation of the Proposed Scheme will not substantially increase the maximum VoC between the 2038 future baseline and the Proposed Scheme. However, in the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 83% in the 2038 future baseline to 94% with the Proposed Scheme on the World Way approach. Queue length will increase from two in the future baseline to three with the Proposed Scheme. The assessment shows that in the AM and PM peak hours, the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour, which is, however, predicted to operate above its capacity in the future baseline.

18.5.138 The change in traffic due to operation of the Proposed Scheme will decrease the maximum VoC from 118% in the 2046 future baseline to 116% with the Proposed Scheme in the AM peak hour, with no change in corresponding queue length. In the PM peak hour the maximum VoC will increase from 118% in the 2046 future baseline to 123% with the Proposed Scheme in 2046 on the Enterprise Way approach, with a corresponding change in queue length from seven PCU in the future baseline to eight PCU with the Proposed Scheme. The change in traffic due to operation of the Proposed Scheme will also increase the VoC from 95% in the 2046 future baseline to 99% with the Proposed Scheme in 2046 on the World Way approach, with a corresponding change in queue length from four PCU to eight PCU. The assessment shows that in the AM and PM peak hours the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour, which is, however, predicted to operate above its capacity in the future baseline.

A56 Dunham Road/A556/A556 Chester Road/A56 Lymm Road (Bowdon Roundabout)

18.5.139 Table 18-271 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046. The A56 Dunham Road/A556/A556 Chester Road/A56 Lymm Road junction comprises of two roundabouts. The A56 Dunham Road/A556/A556 Chester Road/A56 Lymm Road (Bowdon Roundabout) is a five-arm signal controlled roundabout. The M56 on-slip is a one-way exit arm from the junction and is therefore not included in the results. The M56/A556/A556/Yarwoodheath Lane junction is a four-arm signal controlled roundabout, located to the south of the Bowdon Roundabout. The A556 westbound on-slip is a one-way exit arm from the junction and is therefore not included in the results. The operation of M56/A556/A556 junction is reported with Bowdon Roundabout as these two junctions operate as one.

Table 18-271: A56 Dunham Road/A556/A556 Chester Road/A56 Lymm Road (Bowdon Roundabout) junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Durham Road (nearside) (left and ahead)	727	64%	7	724	66%	7	776	68%	8	770	70%	8
A56 Durham Road (offside) (ahead and right)	737	64%	7	735	66%	7	788	68%	8	782	70%	8
A556 (internal northbound) (nearside)	464	59%	1	276	37%	3	512	65%	1	302	53%	1
A556 (internal northbound) (offside)	450	59%	1	265	37%	3	496	65%	1	291	53%	1
A556 Chester Road (nearside and centre) (left and ahead)	607	65%	4	588	58%	4	563	61%	4	564	42%	3
A556 Chester Road (offside) (ahead)	11	2%	0	0	0%	0	11	2%	0	0	0%	0
A56 Lymm Road (left and ahead)	597	63%	3	755	66%	3	596	64%	3	761	68%	3
A556 (internal southbound) (nearside)	597	72%	7	646	62%	3	642	77%	9	692	67%	3
A556 (internal southbound) (offside)	602	73%	7	649	63%	3	648	78%	9	694	67%	3
M56 westbound off-slip (nearside) (ahead)	477	73%	7	271	62%	4	528	80%	8	298	68%	4
M56 westbound off-slip (offside) (ahead)	476	73%	7	270	62%	4	528	81%	8	295	68%	4
Yarwoodheath Lane (left, ahead and right)	0	0%	0	0	0%	0	0	0%	0	0	0%	0
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Durham Road (nearside) (left and ahead)	966	78%	11	921	74%	10	1,016	82%	13	983	79%	12
A56 Durham Road (offside) (ahead and right)	977	78%	12	936	74%	10	1,032	82%	13	1,000	79%	12

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
A556 (internal northbound) (nearside)	467	62%	1	423	54%	1	489	65%	1	417	53%	1
A556 (internal northbound) (offside)	454	62%	1	411	54%	1	475	65%	1	405	53%	1
A556 Chester Road (nearside and centre) (left and ahead)	768	66%	6	855	78%	7	777	66%	6	871	80%	8
A556 Chester Road (offside) (ahead)	24	4%	0	0	0%	0	24	4%	0	0	0%	0
A56 Lymm Road (left and ahead)	445	53%	2	391	45%	2	455	57%	2	408	48%	2
A556 (internal southbound) (nearside)	748	80%	11	734	76%	10	781	84%	12	776	77%	7
A556 (internal southbound) (offside)	748	80%	11	736	76%	10	781	84%	12	776	77%	7
M56 westbound off-slip (nearside) (ahead)	502	83%	9	419	74%	7	524	86%	10	411	77%	7
M56 westbound off-slip (offside) (ahead)	499	82%	9	415	73%	7	522	86%	10	411	78%	7
Yarwoodheath Lane (left, ahead and right)	0	0%	0	0	0%	0	0	0%	0	0	0%	0

18.5.140 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in DoS and queue lengths in the AM or PM peak hours. The assessment shows that in the AM the junction operates well within capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

18.5.141 The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in DoS and queue lengths in the AM peak hour. In the PM peak hour, the change in traffic due to operation of the Proposed Scheme will decrease the maximum DoS from 86% on both the nearside and offside lanes of the M56 westbound off-slip approach to 77% and 78% respectively. Queue length will decrease from 10 PCU in the future baseline to seven PCU in each lane with the Proposed Scheme. The assessment shows that in the AM the junction operates within capacity in the future baseline and well within capacity with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and within capacity with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and a beneficial impact on the operation of the junction in the PM peak hour.

Enterprise Way/Thorley Lane/Bailey Lane

18.5.142 Table 18-272 and Table 18-273 summarise the results of the changes to this junction network as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-272: Enterprise Way/Thorley Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Enterprise Way (north)	470	22%	3	471	22%	3	629	30%	4	640	30%	4
Enterprise Way (south)	1,061	44%	9	1,020	42%	9	1,110	46%	10	1,086	45%	10
Thorley Lane	767	91%	15	769	92%	15	772	92%	16	772	92%	16
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Enterprise Way (north)	914	60%	11	918	61%	11	1,179	75%	14	1,174	76%	14
Enterprise Way (south)	630	49%	10	638	50%	10	477	38%	8	539	42%	9
Thorley Lane	784	33%	10	859	37%	11	695	30%	9	776	33%	10

Table 18-273: Enterprise Way/Bailey Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Bailey Lane	247	119%	4	258	120%	4	189	140%	4	211	139%	4
Enterprise Way (south)	1,440	39%	0	1,381	37%	0	1,562	41%	0	1,480	39%	0
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Bailey Lane	85	27%	0	84	27%	0	107	28%	0	101	28%	0
Enterprise Way (south)	1,196	33%	0	1,226	33%	0	964	26%	0	1,076	29%	0

18.5.143 In 2038 at the Enterprise Way/Thorley Lane junction, the model shows that the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

18.5.144 In 2038 at the Enterprise Way/Bailey Lane junction, the model shows that the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

18.5.145 In 2046 at the Enterprise Way/Thorley Lane junction, the model shows that the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

18.5.146 In 2046 at the Enterprise Way/Bailey Lane junction, the model shows that the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

B5086 Knutsford Road/B5085 Brook Lane/Russet Way/B5085 Knutsford Road

18.5.147 Table 18-274 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046. The Russet Way approach is a minor arm that is not included within the SATURN model.

Table 18-274: B5086 Knutsford Road/B5085 Brook Lane/Russet Way/B5085 Knutsford Road junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline (existing layout)**			**2038 with the Proposed Scheme**			**2046 future baseline (existing layout)**			**2046 with the Proposed Scheme**		
B5086 Knutsford Road (north)	185	18%	0	149	15%	0	239	24%	0	194	21%	0
B5085 Brook Lane	908	89%	0	919	90%	0	997	98%	1	1,018	100%	2
Russet Way	-	-	-	-	-	-	-	-	-	-	-	-
B5085 Knutsford Road (west)	250	43%	0	302	52%	0	313	59%	1	429	84%	2
17:00–18:00	**2038 future baseline (existing layout)**			**2038 with the Proposed Scheme**			**2046 future baseline (existing layout)**			**2046 with the Proposed Scheme**		
B5086 Knutsford Road (north)	47	5%	0	69	8%	0	88	10%	0	117	14%	0
B5085 Brook Lane	113	11%	0	308	30%	0	211	20%	0	422	41%	0
Russet Way	-	-	-	-	-	-	-	-	-	-	-	-
B5085 Knutsford Road (west)	404	38%	0	426	45%	0	451	45%	0	451	51%	0

18.5.148 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

18.5.149 The change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 98% in the 2046 future baseline to 100% with the Proposed Scheme in 2046 on the B5085 Brook Lane approach in the AM peak hour, with a corresponding change in queue length from one PCU in the future baseline to two PCU. In the PM peak hour, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM peak hour the junction operates close to capacity in the future baseline and over capacity with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour.

B5086 Alderley Road/B5086 Knutsford Road/Alderley Road/Alderley Lodge/Bedells Lane (B5086 Fulshaw Cross Roundabout)

18.5.150 Table 18-275 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-275: B5086 Alderley Road/B5086 Knutsford Road/Alderley Road/Alderley Lodge/Bedells Lane (B5086 Fulshaw Cross Roundabout) junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline (existing layout)**			**2038 with the Proposed Scheme**			**2046 future baseline (existing layout)**			**2046 with the Proposed Scheme**		
B5086 Alderley Road	724	105%	11	739	98%	8	725	98%	8	727	91%	5
Alderley Road	155	111%	5	153	111%	5	142	111%	5	142	111%	5
B5086 Knutsford Road	831	77%	1	844	81%	2	966	88%	2	985	93%	4
Bedells Lane	678	101%	8	610	100%	8	540	101%	8	476	100%	8
17:00–18:00	**2038 future baseline (existing layout)**			**2038 with the Proposed Scheme**			**2046 future baseline (existing layout)**			**2046 with the Proposed Scheme**		
B5086 Alderley Road	829	83%	2	898	95%	5	845	91%	3	868	101%	9
Alderley Road	523	103%	9	386	104%	8	461	104%	8	321	104%	7
B5086 Knutsford Road	119	15%	0	296	34%	0	205	24%	0	402	42%	0
Bedells Lane	728	66%	1	791	72%	1	803	73%	1	881	81%	1

18.5.151 The change in traffic due to operation of the Proposed Scheme will not substantially increase the maximum VoC between the 2038 future baseline and the Proposed Scheme in the AM or PM peak hours. However, in the PM peak hour the change in traffic due to operation of the Proposed Scheme will increase the VoC from 83% in the 2038 future baseline to 95% with the Proposed Scheme in 2038 on the B5086 Alderley Road approach. Queue length will increase from two PCU in the future baseline to five PCU with the Proposed Scheme. The assessment shows that in the AM and PM peak hour the junction operates over capacity in both the future baseline with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour, which is, however, predicted to operate above its capacity in the future baseline.

18.5.152 The change in traffic due to operation of the Proposed Scheme will not substantially increase the maximum VoC between the 2046 future baseline and the Proposed Scheme in the AM peak hour. However, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 88% in the 2046 future baseline to 93% with the Proposed Scheme in 2046 on the B5086 Knutsford Road approach in the AM peak hour. Queue length will increase from two PCU in the future baseline to four PCU with the Proposed Scheme. The change in traffic due to operation of the Proposed Scheme will not substantially increase the maximum VoC between the 2046 future baseline and the Proposed Scheme in the PM peak hour. However, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 91% in the 2046 future baseline to 101% with the Proposed Scheme in 2046 on the B5086 Alderley Road approach. Queue length will increase from three PCU in the future baseline to nine PCU with the Proposed Scheme. The assessment shows that in the AM and PM peak hour the junction operates over capacity in both the future baseline with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction, which is, however, predicted to operate above its capacity in the future baseline.

A538 Water Lane/A538 Alderley Road/B5086 Alderley Road

18.5.153 Table 18-276 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-276: A538 Water Lane/A538 Alderley Road/B5086 Alderley Road junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A538 Alderley Road	1,233	78%	17	1,233	78%	17	1,233	77%	17	1,233	77%	17
B5086 Alderley Road	780	59%	15	859	65%	16	883	67%	17	976	74%	19
A538 Water Lane	371	51%	9	371	51%	9	371	51%	9	374	51%	9
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A538 Alderley Road	1,184	87%	19	1,259	92%	20	1,201	88%	19	1,236	91%	19
B5086 Alderley Road	639	51%	13	640	52%	13	639	52%	13	643	52%	13
A538 Water Lane	421	44%	10	419	44%	10	445	47%	10	439	46%	10

18.5.154 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 87% in the 2038 future baseline to 92% with the Proposed Scheme in 2038 on the A538 Alderley Road approach, with a corresponding change in queue length from 19 PCU in the future baseline to 20 PCU. The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

18.5.155 The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 88% in the 2046 future baseline to 91% with the Proposed Scheme in 2046 on the A538 Alderley Road approach, with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

A34 MacLean Way/A34 Birrell Way/A538 Bollin Valley Link (A34 Bollin Valley Roundabout)

18.5.156 Table 18-277 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-277: A34 MacLean Way/A34 Birrell Way/A538 Bollin Valley Link (A34 Bollin Valley Roundabout) junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A34 MacLean Way	2,114	101%	6	2,127	101%	6	2,089	101%	7	2,096	101%	7
A34 Birrell Way	1,242	94%	4	1,245	98%	7	1,322	99%	8	1,344	101%	10
A538 Bollin Valley Link	1,201	55%	0	1,248	57%	0	1,285	59%	0	1,305	61%	0
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A34 MacLean Way	1,709	80%	0	1,824	86%	1	1,780	86%	1	1,867	90%	1
A34 Birrell Way	966	78%	1	925	83%	2	1,035	89%	3	983	92%	4
A538 Bollin Valley Link	1,556	75%	1	1,592	76%	1	1,572	77%	1	1,601	78%	1

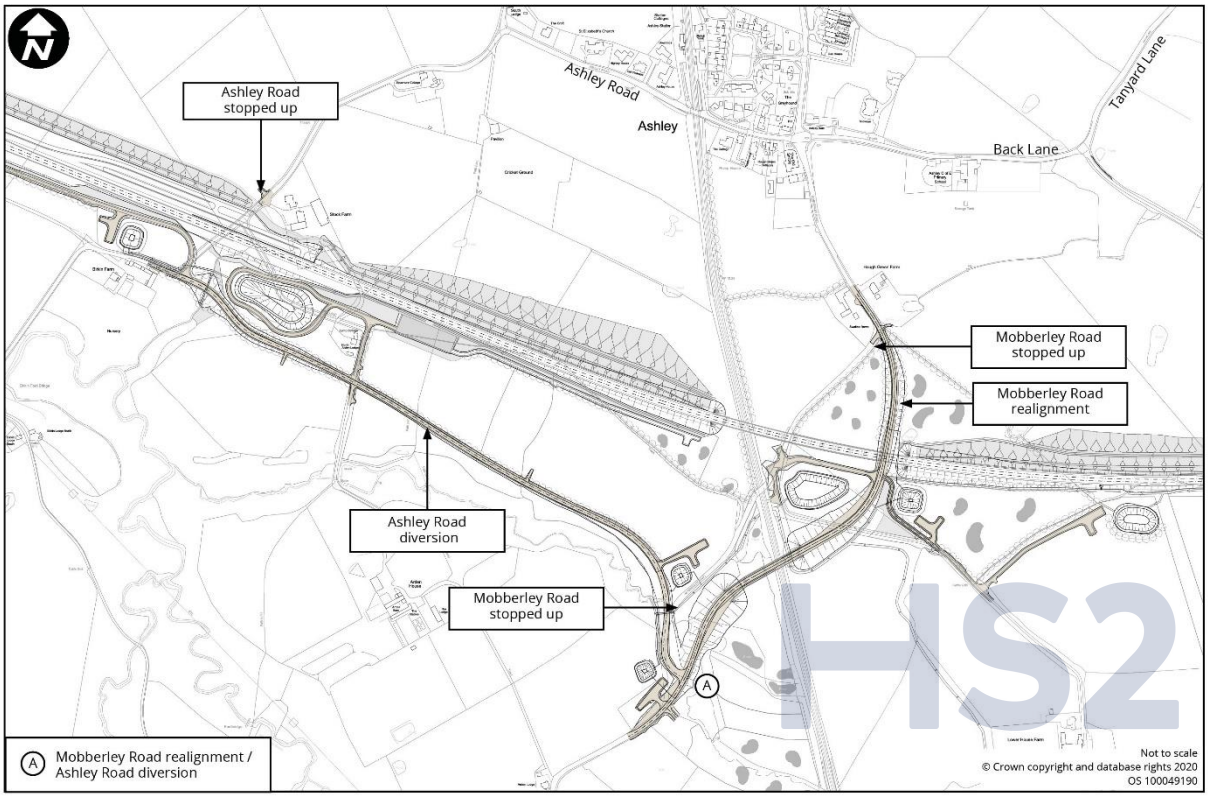
18.5.157 The change in traffic due to operation of the Proposed Scheme will not increase the maximum VoC between the 2038 future baseline and the Proposed Scheme in the AM peak hour. However, in the AM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 94% in the 2038 future baseline to 98% with the Proposed Scheme in 2038 on the A34 Birrell Way approach. Queue length will increase from four PCU in the future baseline to seven PCU with the Proposed Scheme. In the PM peak hour, the change in traffic due to the operation of the Proposed Scheme will increase the maximum VoC from 80% in the 2038 future baseline to 86% with the Proposed Scheme in 2038 on the A34 MacLean Way approach, with a corresponding change in queue length from no queue in the future baseline to one PCU. The assessment shows that in the AM peak hour the junction operates over capacity in both future baseline and with the Proposed Scheme. In the PM peak hour, the assessment shows that this junction operates within capacity in the future baseline and close to capacity with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction.

18.5.158 The change in traffic due to operation of the Proposed Scheme will not increase the maximum VoC between the 2046 future baseline and the Proposed Scheme in the AM peak hour. However, in the AM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 99% in the 2046 future baseline to 101% with the Proposed Scheme in 2046 on the A34 Birrell Way approach. Queue length will increase from eight PCU in the future baseline to ten PCU with the Proposed Scheme. In the PM peak hour, the change in traffic due to the operation of the Proposed Scheme will increase the maximum VoC from 89% in the 2046 future baseline to 92% with the Proposed Scheme in 2046 on the A34 Birrell Way approach, with a corresponding change in queue length from three PCU in the future baseline to four PCU. The assessment shows that in the AM peak hour the junction operates over capacity in the both the future baseline and with the Proposed Scheme. In the PM peak hour, the assessment shows that this junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction.

Ashley Road diversion/Mobberley Road realignment

18.5.159 This junction is to be a new three-arm priority controlled (give way) T-junction with no controlled pedestrian facilities as a result of the Proposed Scheme. This new junction is located approximately 900m south of the existing Ashley Road/Back Lane/Mobberley Road/Cow Lane junction. Figure 18-96 shows the junction layout introduced as part of the Proposed Scheme.

Figure 18-96. Junction layout diagram (Ashley Road diversion/Mobberley Road realignment)



18.5.160 Table 18-278 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-278: Ashley Road diversion/Mobberley Road realignment junction 2038 and 2046 Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00–09:00	**2038 with the Proposed Scheme (proposed layout)**			**2046 with the Proposed Scheme (proposed layout)**		
Mobberley Road (north) (ahead and right)	567	0.48	2	584	0.41	1
Mobberley Road (south) (ahead)	506	0.00	0	529	0.00	0
Mobberley Road (south) (left)	11	0.00	0	15	0.00	0
Ashley Road (left)	333	0.67	2	316	0.66	2
Ashley Road (right)	28	0.12	0	50	0.21	0
17:00 – 18:00	**2038 with the Proposed Scheme (proposed layout)**			**2046 with the Proposed Scheme (proposed layout)**		
Mobberley Road (north) (ahead and right)	589	0.61	2	650	0.86	8
Mobberley Road (south) (ahead)	627	0.00	0	747	0.00	0
Mobberley Road (south) (left)	25	0.00	0	33	0.00	0
Ashley Road (left)	246	0.54	1	318	0.77	3
Ashley Road (right)	32	0.16	0	34	0.24	0

18.5.161 The assessment shows that this junction operates well within capacity in 2038 with the Proposed Scheme.

18.5.162 In 2046 with the Proposed Scheme the assessment shows that this junction operates well within capacity in the AM peak hour. In the PM peak hour, the assessment shows that this junction operates close to capacity with a maximum RFC of 0.86 on the Mobberley Road (north) (ahead and right) approach with an associated queue length of eight PCU.

A538 Wilmslow Road/Mill Lane

18.5.163 Table 18-279 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-279: A538 Wilmslow Road/Mill Lane junction 2036 and 2036 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A538 Wilmslow Road (north) (ahead and right)	866	0.17	0	1,040	0.26	0	790	0.20	0	966	0.28	0
A538 Wilmslow Road (south) (ahead and left)	1,140	-	-	1,242	-	-	1,272	-	-	1,393	-	-
Mill Lane (left)	120	1.00	7	110	1.07	9	124	1.09	10	113	1.20	13
Mill Lane (right)	221	1.00	10	180	1.07	13	225	1.08	16	175	1.19	20
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A538 Wilmslow Road (north) (ahead and right)	977	0.33	1	1,182	0.26	0	1,004	0.35	1	1,228	0.29	0
A538 Wilmslow Road (south) (ahead and left)	1,312	-	-	1,187	-	-	1,334	-	-	1,188	-	-
Mill Lane (left)	86	0.96	5	102	1.20	12	83	1.03	6	97	1.23	12
Mill Lane (right)	173	0.97	8	103	1.19	21	176	1.03	11	189	1.21	22

18.5.164 The change in traffic due to operation of the Proposed Scheme will increase the maximum RFC from 1.00 in the 2038 future baseline to 1.07 with the Proposed Scheme in 2038 on both the Mill Lane (left) and Mill Lane (right) approach in the AM peak hour, with a corresponding change in queue length from seven PCU and 10 PCU in the future baseline to nine PCU and 13 PCU respectively. In the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the maximum RFC from 0.97 in the 2038 future baseline to 1.19 with the Proposed Scheme in 2038 on the Mill Lane (right) approach, with a corresponding change in queue length from eight PCU in the future baseline to 21 PCU. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and over capacity with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction.

18.5.165 The change in traffic due to operation of the Proposed Scheme will increase the maximum RFC from 1.09 in the 2046 future baseline to 1.20 with the Proposed Scheme in 2046 on the Mill Lane (left) approach in the AM peak hour, with a corresponding change in queue length from 10 PCU in the future baseline to 13 PCU. In the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the maximum RFC from 1.03 in the 2046 future baseline to 1.23 with the Proposed Scheme in 2046 on the Mill Lane (left) approach, with a corresponding change in queue length from six PCU in the future baseline to 12 PCU. The assessment shows that in the AM and PM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction.

Castle Mill Lane/Brickhill Lane diversion

18.5.166 This junction will be a new three-arm priority controlled (give way) T-junction with no controlled pedestrian facilities as a result of the Proposed Scheme. This new junction is located approximately 350m east of the existing Castle Mill Lane/Back Lane junction. Figure 18-97 shows the junction layout introduced as part of the Proposed Scheme. Table 18-280 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Figure 18-97: Junction layout diagram (Castle Mill Lane/Brickhill Lane diversion)

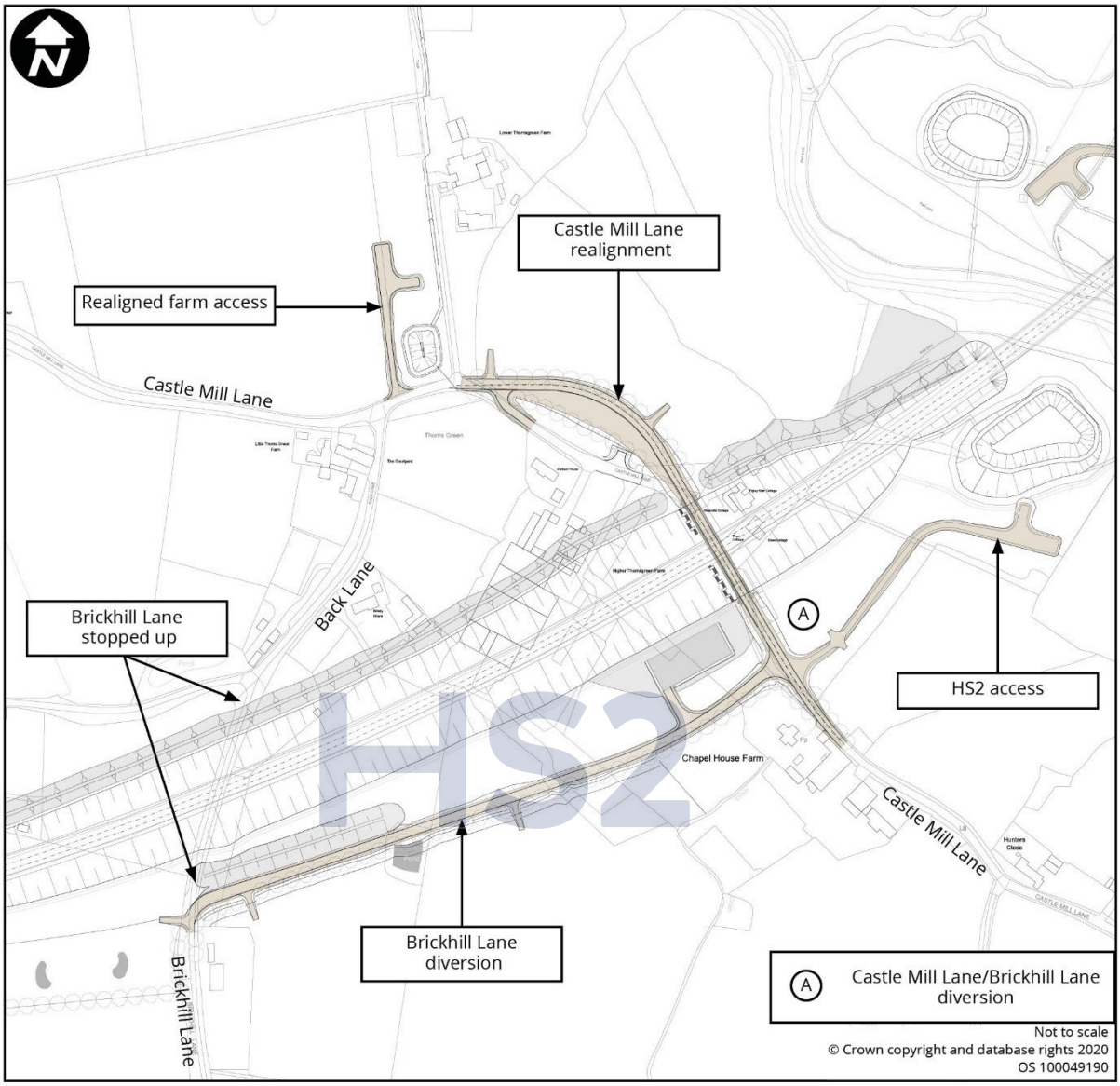


Table 18-280: Castle Mill Lane/Brickhill Lane diversion junction 2038 and 2046 Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00–09:00	**2038 with the Proposed Scheme (proposed layout)**			**2046 with the Proposed Scheme (proposed layout)**		
Castle Mill Lane (north) (ahead and right)	313	0.01	0	314	0.01	0
Castle Mill Lane (south) (left and ahead)	267	-	0	289	-	0
Brickhill Lane Diversion (left)	4	0.01	0	4	0.01	0
Brickhill Lane Diversion (right)	4	0.01	0	4	0.01	0
17:00 – 18:00	**2038 with the Proposed Scheme (proposed layout)**			**2046 with the Proposed Scheme (proposed layout)**		
Castle Mill Lane (north) (ahead and right)	316	0.01	0	307	0.01	0
Castle Mill Lane (south) (left and ahead)	266	-	0	299	-	0
Brickhill Lane Diversion (left)	4	0.01	0	4	0.01	0
Brickhill Lane Diversion (right)	4	0.01	0	4	0.01	0

18.5.167 The assessment shows that this junction operates within capacity in both 2038 and 2046 with the Proposed Scheme.

Castle Mill Lane/Back Lane

18.5.168 Castle Mill Lane/Back Lane is to be a modified four-arm priority controlled staggered junction as a result of the Proposed Scheme. The proposals include realigning the existing farm access. Figure 18-98 shows the junction layout introduced as part of the Proposed Scheme. Table 18-281 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046.

Figure 18-98: Junction layout diagram (Castle Mill Lane/Back Lane)

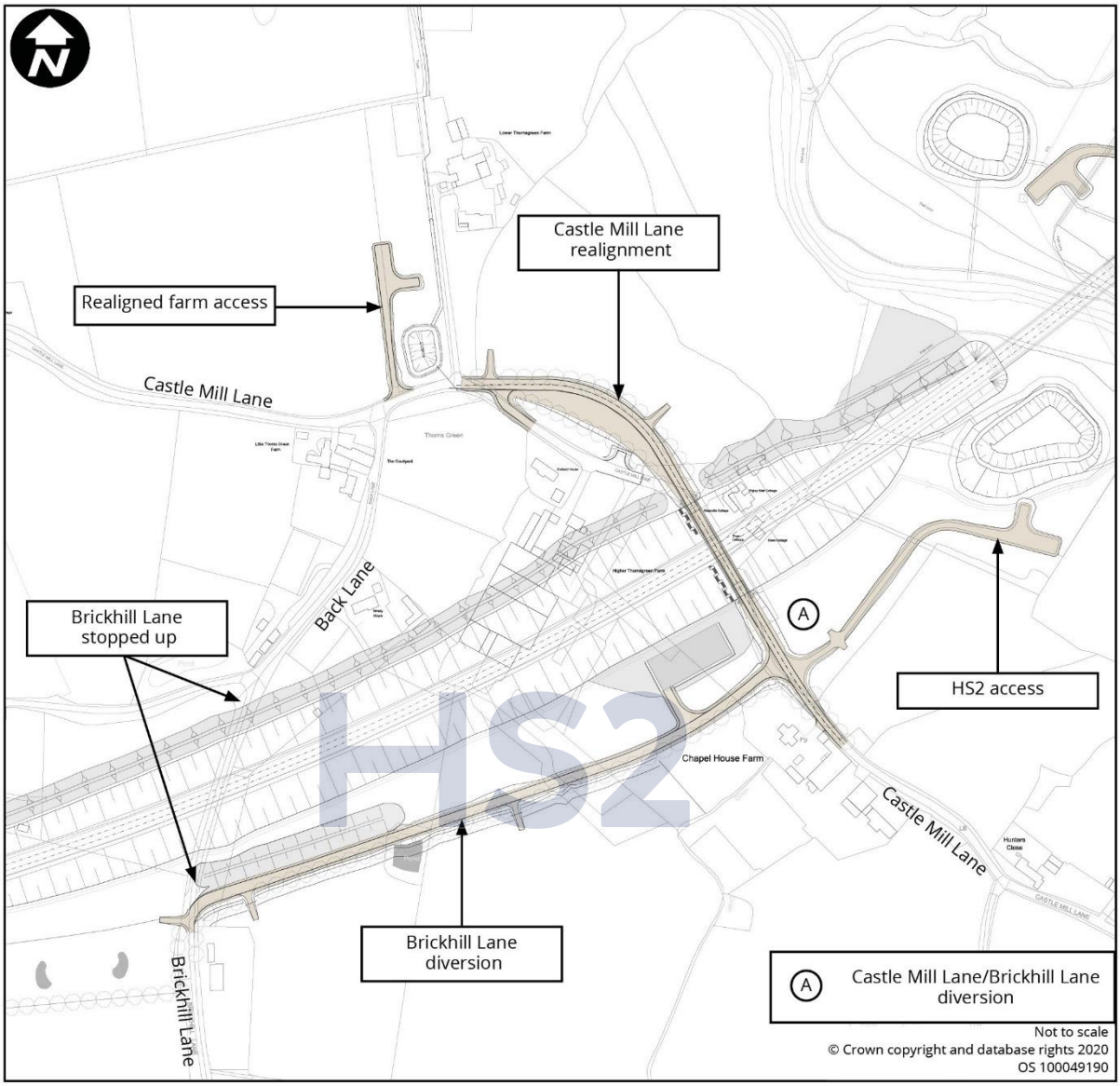


Table 18-281: Castle Mill Lane/Back Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU	Flow, PCU/hr	RFC	Q, PCU
08:00 – 09:00	**2038 future baseline (existing layout)**			**2038 with the Proposed Scheme (proposed layout)**			**2046 future baseline (existing layout)**			**2046 with the Proposed Scheme (proposed layout)**		
Realigned Farm Access (left, ahead and right)	-	-	-	10	0.02	0	-	-	-	10	0.02	0
Castle Mill Lane (east) (left, ahead and right)	-	-	-	152	0.01	0	-	-	-	174	0.01	0
Back Lane (left, ahead and right)	12	0.03	0	0	0.00	0	12	0.03	0	0	0.00	0
Castle Mill Lane (west) (left, ahead and right	328	0.01	0	153	0.00	0	338	0.01	0	154	0.00	0
17:00–18:00	**2038 future baseline (existing layout)**			**2038 with the Proposed Scheme (proposed layout)**			**2046 future baseline (existing layout)**			**2046 with the Proposed Scheme (proposed layout)**		
Realigned Farm Access (left, ahead and right)	-	-	-	10	0.02	0	-	-	-	10	0.02	0
Castle Mill Lane (east) (left, ahead and right)	-	-	-	145	0.01	0	-	-	-	178	0.01	0
Back Lane (left, ahead and right)	5	0.01	0	0	0.00	0	5	0.01	0	0	0.00	0
Castle Mill Lane (west) (left, ahead and right	232	0.00	0	88	0.00	0	232	0.00	0	79	0.00	0

18.5.169 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in RFC and queue lengths in the AM and PM peak hours. The assessment shows that in the AM and PM peak hours the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM and PM peak hour.

18.5.170 The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in RFC and queue lengths in AM and PM peak hours. The assessment shows that in the AM and PM peak hours the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM and PM peak hour.

Ashley Road/Back Lane/Mobberley Road/Cow Lane

18.5.171 Table 18-282 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046. Whilst there will be no physical changes to the layout of the junction, changes to the south of this junction will result in traffic being reassigned from Ashley Road to Mobberley Road.

Table 18-282: Ashley Road/Back Lane/Mobberley Road/Cow Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	RFC	Queue, PCU	Flow, PCU/hr	RFC	Queue, PCU	Flow, PCU/hr	RFC	Queue, PCU	Flow, PCU/hr	RFC	Queue, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Cow Lane (ahead, left and right)	487	0.29	0	444	0.00	0	452	0.31	1	436	0.00	0
Back Lane (left and ahead)	76	0.19	0	50	0.10	0	121	0.32	1	52	0.10	0
Back Lane (right and ahead)	23	0.05	0	0	0.00	0	46	0.13	0	11	0.05	0
Mobberley Road (ahead, left and right)	460	0.32	1	669	0.44	1	473	0.34	1	676	0.44	1
Ashley Road (ahead, left and right)	448	1.29	63	0	0.00	0	520	1.50	124	0	0.00	0
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Cow Lane (ahead, left and right)	327	0.25	0	386	0.00	0	320	0.27	0	395	0.00	0
Back Lane (left and ahead)	103	0.43	1	143	0.28	0	113	0.54	1	184	0.36	1
Back Lane (right and ahead)	159	0.27	0	13	0.05	0	197	0.36	1	14	0.05	0
Mobberley Road (ahead, left and right)	431	0.11	0	546	0.11	0	474	0.13	0	612	0.12	0
Ashley Road (ahead, left and right)	262	0.61	2	0	0.00	0	272	0.65	2	0	0.00	0

18.5.172 The change in traffic due to operation of the Proposed Scheme will decrease the maximum RFC from 1.29 in the 2038 future baseline to 0.00 with the Proposed Scheme in 2038 on the Ashley Road (ahead, left and right) approach in the AM peak hour. In the PM peak hour, the maximum RFC will decrease from 0.61 in the 2038 future baseline to 0.00 with the Proposed Scheme in 2038 on the Ashley Road (ahead, left and right) approach. The assessment shows that in the AM peak hour the junction operates over capacity in the future baseline and well within capacity with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in the future baseline and close to capacity with the Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

18.5.173 The change in traffic due to operation of the Proposed Scheme will decrease the maximum RFC from 1.50 in the 2046 future baseline to 0.00 with the Proposed Scheme in 2046 on the Ashley Road (ahead, left and right) approach in the AM peak hour. The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the PM peak hour. The assessment shows that in the AM peak hour the junction operates over capacity in the future baseline and well within capacity with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction.

Chicago Avenue/Malaga Avenue

18.5.174 Table 18-283 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046

Table 18-283: Chicago Avenue/Malaga Avenue junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Car Park Access Road	266	27%	0	289	30%	0	294	30%	0	318	32%	0
Malaga Avenue	738	109%	7	715	110%	7	792	123%	8	752	121%	8
Chicago Avenue	199	26%	0	270	32%	0	157	21%	0	211	27%	0
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Car Park Access Road	278	32%	0	302	37%	0	302	39%	0	326	40%	0
Malaga Avenue	665	97%	4	669	101%	6	703	106%	7	821	101%	5
Chicago Avenue	312	34%	0	370	40%	0	400	43%	0	333	39%	0

18.5.175 The change in traffic due to operation of the Proposed Scheme will not substantially increase the maximum VoC between the 2038 future baseline and the Proposed Scheme in the AM peak hour. However, in the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 97% in the 2038 future baseline to 101% with the Proposed Scheme in 2038 on the Malaga Avenue approach. Queue length will increase from four in the future baseline to six with the Proposed Scheme. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and over capacity with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour which is, however, predicted to operate above its capacity in the future baseline. The traffic flow will have an adverse impact on the operation of the junction in the PM peak hour.

18.5.176 The change in traffic due to operation of the Proposed Scheme will decrease the maximum VoC from 123% in the 2046 future baseline to 121% with the Proposed Scheme in 2046 on the Malaga Avenue approach in the AM peak hour, with no change in corresponding queue length. In the PM peak hour the maximum VoC will decrease from 106% in the 2046 future baseline to 101% with the Proposed Scheme in 2046 on the Malaga Avenue approach, with a corresponding change in queue length from seven PCU in the future baseline to five PCU. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction which is, however, predicted to operate above its capacity in the future baseline.

World Way/Chicago Avenue/Palma Avenue

18.5.177 Table 18-284 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-284: World Way/Chicago Avenue/Palma Avenue junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
World Way	92	5%	0	165	9%	0	43	3%	0	102	6%	0
Chicago Avenue	758	81%	0	810	85%	0	737	80%	0	767	82%	0
Palma Avenue (north west)	987	60%	0	1,158	71%	1	1,323	80%	1	1,320	81%	1
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
World Way	266	14%	0	283	15%	0	251	14%	0	235	13%	0
Chicago Avenue	866	90%	0	886	92%	0	885	91%	0	850	88%	0
Palma Avenue (north west)	1,186	76%	1	1,439	92%	2	1,447	100%	8	1,629	105%	9

18.5.178 The change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 81% in the 2038 future baseline to 85% with the Proposed Scheme in 2038 on the Chicago Avenue approach in the AM peak hour, with no change in corresponding queue length. In the PM peak hour the maximum VoC will increase from 90% in the 2038 future baseline to 92% with the Proposed Scheme in 2038 on the Chicago Avenue approach, with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and close to capacity with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction.

18.5.179 The change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 80% in the 2046 future baseline to 82% with the Proposed Scheme in 2046 on the Chicago Avenue approach in the AM peak hour, with no change in corresponding queue length. In the PM peak hour the maximum VoC will increase from 100% in the 2046 future baseline to 105% with the Proposed Scheme in 2046 on the Palma Avenue (north west) approach, with a corresponding change in queue length from eight PCU in the future baseline to nine PCU. The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

Tithebarn Road/High Elm Road/Chapel Road

18.5.180 Table 18-285 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-285: Tithebarn Road/High Elm Road/Chapel Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Tithebarn Road (north)	154	8%	0	191	10%	0	145	7%	0	150	8%	0
High Elm Road	25	5%	0	17	8%	0	27	12%	0	4	2%	0
Chapel Lane (south)	744	100%	3	735	94%	1	826	95%	1	799	103%	3
Chapel Lane (west)	64	28%	0	61	18%	0	71	31%	0	102	42%	0
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Tithebarn Road (north)	164	8%	0	173	9%	0	167	8%	0	168	8%	0
High Elm Road	75	17%	0	103	24%	0	88	20%	0	115	27%	0
Chapel Lane (south)	283	14%	0	302	15%	0	286	14%	0	308	16%	0
Chapel Lane (west)	194	49%	0	142	38%	0	217	54%	0	176	47%	0

18.5.181 The change in traffic due to operation of the Proposed Scheme will decrease the maximum VoC from 100% in the 2038 future baseline to 94% with the Proposed Scheme in 2038 on the Chapel Lane (south) approach in the AM peak hour, with a corresponding change in queue length from three PCU to one PCU. In the PM peak hour, the model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM peak hour the junction operates over capacity in the future baseline and close to capacity with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour.

18.5.182 The change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 95% in the 2046 future baseline to 103% with the Proposed Scheme in 2046 on the Chapel Lane (south) approach in the AM peak hour, with a corresponding change in queue length from one PCU in the future baseline to three PCU. In the PM peak hour, the model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM peak hour the junction operates close to capacity in the future baseline and over capacity with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour.

A538 Hale Road/Elmridge Drive

18.5.183 Table 18-286 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-286: A538 Hale Road/Elmridge Drive junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A538 Hale Road (east)	835	45%	0	801	40%	0	1,110	55%	0	915	46%	0
Elmridge Drive	602	99%	8	521	78%	3	504	85%	5	581	95%	6
A538 Hale Road (west)	443	22%	0	375	19%	0	398	20%	0	412	21%	0
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A538 Hale Road (east)	621	31%	0	504	25%	0	608	30%	0	501	25%	0
Elmridge Drive	65	10%	0	23	4%	0	88	14%	1	41	6%	0
A538 Hale Road (west)	552	28%	0	575	30%	0	598	31%	0	617	32%	0

18.5.184 The change in traffic due to the operation of the Proposed Scheme will decrease the maximum VoC from 99% in the 2038 future baseline to 78% with the Proposed Scheme in 2038 on the Elmridge Drive approach in the AM peak hour, with a change in corresponding queue length from eight PCU in the future baseline to three PCU. In the PM peak hour, the model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM peak hour the junction operates close to capacity in the future baseline and within capacity with the Proposed Scheme. In the PM peak hour, the assessment shows that the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a beneficial impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour.

18.5.185 The change in traffic due to the operation of the Proposed Scheme will increase the maximum VoC from 85% in the 2046 future baseline to 95% with the Proposed Scheme in 2046 on the Elmridge Drive approach in the AM peak hour, with a change in corresponding queue length from five PCU in the future baseline to six PCU. In the PM peak hour, the model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the assessment shows that this junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour.

A538 Hale Road/Shay Lane

18.5.186 Table 18-287 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-287: A538 Hale Road/Shay Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A538 Hale Road (north)	801	40%	0	796	40%	0	1,076	54%	0	892	45%	0
Shay Lane	210	101%	6	237	104%	6	187	107%	5	254	107%	6
A538 Hale Road (south)	879	80%	0	813	76%	0	716	97%	1	842	95%	1
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A538 Hale Road (north)	638	32%	0	509	26%	0	609	31%	0	496	25%	0
Shay Lane	238	91%	3	274	93%	3	255	91%	3	287	94%	3
A538 Hale Road (south)	740	59%	0	744	56%	0	777	63%	0	778	61%	0

18.5.187 The change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 101% in the 2038 future baseline to 104% with the Proposed Scheme in 2038 on the Shay Lane approach in the AM peak hour, with no change in corresponding queue length. In the PM peak hour, the maximum VoC will increase from 91% in the 2038 future baseline to 93% with the Proposed Scheme in 2038 on the Shay Lane approach, with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction.

18.5.188 The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will increase from 91% in the 2046 future baseline to 94% with the Proposed Scheme in 2046 on the Shay Lane approach, with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

Runger Lane/Thorley Lane

18.5.189 Table 18-288 shows the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-288: Runger Lane/Thorley Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU	Flow, PCU/hr	DoS	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Thorley Lane (east) (ahead)	129	12%	1	143	14%	2	139	13%	2	157	15%	2
Thorley Lane (east) (ahead and right)	353	51%	4	367	51%	4	382	59%	5	399	60%	5
Runger Lane (left and ahead)	665	72%	11	673	73%	11	718	77%	12	729	79%	13
Runger Lane (ahead)	496	59%	9	503	60%	9	536	64%	10	547	65%	10
Thorley Lane (west) (left)	200	28%	2	200	28%	2	216	31%	2	216	32%	2
Thorley Lane (west) (right)	38	9%	0	38	9%	0	42	10%	1	42	10%	1
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Thorley Lane (east) (ahead)	243	23%	3	251	24%	3	262	25%	3	274	26%	3
Thorley Lane (east) (ahead and right)	498	45%	4	507	45%	4	537	50%	5	549	51%	5
Runger Lane (left and ahead)	577	56%	5	592	58%	6	623	60%	6	642	63%	7
Runger Lane (ahead)	323	38%	5	338	40%	5	349	41%	5	368	44%	6
Thorley Lane (west) (left)	141	17%	1	141	17%	1	152	19%	1	152	19%	1
Thorley Lane (west) (right)	70	17%	1	70	17%	1	76	19%	1	76	19%	1

18.5.190 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in DoS and queue lengths in the AM or PM peak hours. The assessment shows that in the AM and PM peak hours the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

18.5.191 The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in DoS and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

A5144 Delahays Road/A538 Hale Road/B5162 Park Road

18.5.192 Table 18-289 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-289: A5144 Delahays Road/A538 Hale Road/B5162 Park Road junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A5144 Delahays Road	939	99%	21	928	103%	20	961	105%	20	900	106%	19
A538 Hale Road (south)	785	62%	13	728	58%	12	714	60%	12	719	59%	12
B5162 Park Road	460	40%	8	525	45%	9	587	51%	10	604	52%	11
A538 Hale Road (north)	379	52%	8	399	52%	9	474	61%	10	452	59%	10
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A5144 Delahays Road	787	76%	12	774	76%	12	792	83%	13	776	82%	12
A538 Hale Road (south)	683	69%	10	704	71%	11	708	72%	11	717	73%	11
B5162 Park Road	629	46%	8	621	46%	8	736	55%	9	729	55%	9
A538 Hale Road (north)	368	86%	7	359	86%	7	365	87%	7	359	87%	7

18.5.193 The change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 99% in the 2038 future baseline to 103% with the Proposed Scheme in 2038 on the A5144 Delahays Road approach in the AM peak hour, with a corresponding change in queue length from 21 PCU in the future baseline to 20 PCU. The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the PM peak hour. The assessment shows that in the AM peak hour the junction operates close to capacity in the future baseline and over capacity with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour.

18.5.194 The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have negligible impact on the operation of the junction.

A538 Hale Road/Westminster Road

18.5.195 Table 18-290 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-290: A538 Hale Road/Westminster Road junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline (existing layout)**			**2038 with the Proposed Scheme**			**2046 future baseline (existing layout)**			**2046 with the Proposed Scheme**		
Westminster Road	327	90%	2	341	95%	3	337	100%	5	350	100%	5
A538 Hale Road (east)	875	74%	0	819	72%	0	862	78%	0	779	74%	0
A538 Hale Road (west)	459	25%	0	499	27%	0	561	31%	0	585	32%	0
17:00–18:00	**2038 future baseline (existing layout)**			**2038 with the Proposed Scheme**			**2046 future baseline (existing layout)**			**2046 with the Proposed Scheme**		
Westminster Road	418	97%	3	370	96%	3	378	98%	4	358	98%	4
A538 Hale Road (east)	505	46%	0	502	50%	0	499	50%	0	503	51%	0
A538 Hale Road (west)	397	22%	0	433	24%	0	413	22%	0	415	22%	0

18.5.196 The change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 90% in the 2038 future baseline to 95% with the Proposed Scheme in 2038 on the Westminster Road approach in the AM peak hour, with a corresponding change in queue length from two PCU in the future baseline to three PCU. In the PM peak hour, the model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM and PM peak hour the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour.

18.5.197 The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

A5154 Delahays Road/Grove Lane

18.5.198 Table 18-291 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-291: A5154 Delahays Road/Grove Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Queue, PCU	Flow, PCU/hr	VoC	Queue, PCU	Flow, PCU/hr	VoC	Queue, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A5154 Delahays Road (north)	667	43%	6	683	45%	6	733	48%	7	678	45%	6
Grove Lane (east)	359	56%	6	370	59%	6	341	54%	5	334	55%	5
A5154 Delahays Road (south)	819	74%	11	920	83%	12	885	83%	12	980	88%	13
Grove Lane (west)	394	59%	6	412	63%	7	409	60%	6	445	65%	7
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A5154 Delahays Road (north)	628	39%	6	636	40%	6	624	40%	6	634	41%	6
Grove Lane (east)	406	72%	6	408	72%	6	407	72%	6	426	75%	7
A5154 Delahays Road (south)	651	55%	9	743	63%	10	755	64%	10	830	71%	11
Grove Lane (west)	596	97%	9	598	97%	9	604	98%	9	586	99%	9

18.5.199 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates well within capacity in the future baseline and within capacity with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation.

18.5.200 The change in traffic due to the operation of the Proposed Scheme will increase the maximum VoC from 83% in the 2046 future baseline to 88% with the Proposed Scheme in 2046 on the A5154 Delahays Road (south) approach in the AM peak hour, with a corresponding change in queue length from 12 PCU in the future baseline to 13 PCU. In the PM peak hour, the model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and close to capacity with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour and a negligible impact on operation in the PM peak hour.

A56 Dunham Road/B5160 Park Road/B5160 Charcoal Road

18.5.201 Table 18-292 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-292: A56 Dunham Road/B5160 Park Road/B5160 Charcoal Road junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Dunham Road (north)	1,022	54%	16	1,018	54%	16	1,078	57%	17	1,074	57%	17
B5160 Park Road	745	65%	12	758	67%	12	795	70%	13	764	68%	12
A56 Dunham Road (south)	1,225	66%	18	1,273	69%	19	1,284	70%	19	1,321	72%	19
B5160 Charcoal Road	527	111%	11	524	111%	10	530	112%	10	527	113%	10
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Dunham Road (north)	947	50%	15	992	52%	16	904	48%	14	929	49%	15
B5160 Park Road	855	75%	14	858	75%	14	845	74%	14	871	76%	14
A56 Dunham Road (south)	1,565	85%	24	1,608	87%	24	1,685	91%	26	1,687	91%	26
B5160 Charcoal Road	502	106%	11	502	105%	11	505	106%	11	504	106%	11

18.5.202 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM peak hour. The change in traffic due to operation of the Proposed Scheme will not substantially change the maximum VoC between the 2038 future baseline and the Proposed Scheme in the PM peak hours. However, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 85% in the 2038 future baseline to 87% with the Proposed Scheme in 2038 on the A56 Dunham Road (south) approach in the PM peak hour. There will be no change in queue lengths. The assessment shows that in the AM and PM peak hour, the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour, which is, however, predicted to operate above its capacity in the future baseline.

18.5.203 The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM and PM peak hour. The assessment shows that in the AM and PM peak hour, the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction, which is, however, predicted to operate above its capacity in the future baseline.

A538 Hale Road/Ashfield Road/Victoria Road

18.5.204 Table 18-293 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-293: A538 Hale Road/Ashfield Road/Victoria Road junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Ashfield Road	189	91%	3	197	91%	3	208	95%	4	220	95%	4
A538 Hale Road (east)	652	33%	0	630	32%	0	699	35%	0	631	32%	0
Victoria Road	67	20%	0	77	22%	0	79	24%	0	81	23%	0
A538 Hale Road (west)	431	27%	0	447	25%	0	495	31%	0	470	24%	0
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Ashfield Road	174	97%	5	182	100%	5	170	98%	5	187	101%	6
A538 Hale Road (east)	438	22%	0	423	21%	0	458	23%	0	451	23%	0
Victoria Road	76	18%	0	76	17%	0	89	21%	0	87	21%	0
A538 Hale Road (west)	772	78%	0	743	66%	0	784	82%	0	720	68%	0

18.5.205 The change in traffic due to operation of the Proposed Scheme will not increase the maximum VoC between the 2038 future baseline and the Proposed Scheme in the AM peak hour. However, in the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 97% in the 2038 future baseline to 100% with the Proposed Scheme in 2038 on the Ashfield Road approach in the PM peak hour. There will be no change in queue lengths. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and over capacity with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

18.5.206 The change in traffic due to operation of the Proposed Scheme will not increase the maximum VoC between the 2046 future baseline and the Proposed Scheme in the AM peak hour. However, in the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 98% in the 2046 future baseline to 101% with the Proposed Scheme in 2046 on the Ashfield Road approach in the PM peak hour. Queue length will increase from five PCU in the future baseline to six PCU with the Proposed Scheme. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and over capacity with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

A5144 Thorley Lane/Clay Lane/Wood Lane

18.5.207 Table 18-294 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-294: A5144 Thorley Lane/Clay Lane/Wood Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A5144 Thorley Lane (north)	918	101%	4	908	100%	4	908	101%	4	907	100%	4
Clay Lane	766	101%	6	755	102%	6	734	102%	6	754	102%	6
A5144 Thorley Lane (south)	534	81%	1	557	84%	1	574	85%	1	619	93%	2
Wood Lane	279	50%	0	290	54%	0	319	59%	1	306	59%	1
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A5144 Thorley Lane (north)	907	99%	3	916	100%	3	932	100%	3	925	101%	4
Clay Lane	739	101%	6	739	102%	6	750	102%	6	750	103%	6
A5144 Thorley Lane (south)	677	100%	6	684	101%	6	681	101%	6	684	101%	6
Wood Lane	264	59%	1	261	58%	1	253	57%	1	311	69%	1

18.5.208 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM and PM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

18.5.209 The change in traffic due to operation of the Proposed Scheme will not substantially increase the maximum VoC between the future baseline and the Proposed Scheme in the AM or PM peak hours. However, in the AM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 85% in the 2046 future baseline to 93% with the Proposed Scheme in 2046 on the A5144 Thorley Lane (south) approach. Queue length will increase from one PCU in the future baseline to two PCU with the Proposed Scheme. The assessment shows that in the AM and PM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour, which is, however, predicted to operate above its capacity in the future baseline, and a negligible impact on the operation of the junction in the PM peak hour.

A56 Old Market Place/Kingsway

18.5.210 Table 18-295 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-295: A56 Old Market Place/Kingsway junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Old Market Place (north)	824	41%	0	861	43%	0	938	47%	0	948	47%	0
Kingsway	237	56%	1	225	55%	1	220	60%	2	209	58%	2
A56 Old Market Place (west)	519	26%	0	497	25%	0	464	23%	0	474	24%	0
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Old Market Place (north)	573	29%	0	557	28%	0	566	28%	0	537	27%	0
Kingsway	604	87%	4	628	89%	5	623	90%	6	654	93%	6
A56 Old Market Place (west)	782	39%	0	784	39%	0	805	40%	0	844	42%	0

18.5.211 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will increase from 87% in the 2038 future baseline to 89% with the Proposed Scheme in 2038 on the Kingsway approach, with a corresponding change in queue length from four PCU in the future baseline to five PCU. The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

18.5.212 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the maximum VoC will increase from 90% in the 2046 future baseline to 93% with the Proposed Scheme in 2046 on the Kingsway approach, with no corresponding change in queue length. The assessment shows that in the AM peak hour the junction operates well within capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

Oldfield Road/Gorsey Lane

18.5.213 Table 18-296 summarises the results of the changes to the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-296: Oldfield Road/Gorsey Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Oldfield Road (east)	326	37%	0	336	38%	0	324	36%	0	336	38%	0
Gorsey Lane	778	84%	0	806	88%	1	814	89%	1	830	92%	1
Oldfield Road (west)	320	52%	0	323	54%	0	326	56%	0	328	57%	1
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Oldfield Road (east)	579	62%	0	597	64%	0	596	64%	0	583	63%	0
Gorsey Lane	506	57%	0	491	56%	0	547	61%	0	540	60%	0
Oldfield Road (west)	212	28%	0	216	28%	0	225	30%	0	251	32%	0

18.5.214 The change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 84% in the 2038 future baseline to 88% with the Proposed Scheme in 2038 on the Gorsey Lane approach in the AM peak hour, with a corresponding change in queue length from no queue in the future baseline to one PCU. In the PM peak hour, the model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and close to capacity with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour, and a negligible impact on the operation of the junction in the PM peak hour.

18.5.215 The change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 89% in the 2046 future baseline to 92% with the Proposed Scheme in 2046 on the Gorsey Lane approach in the AM peak hour, with no change in corresponding queue length. In the PM peak hour, the model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM peak hour the junction operates close to capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates well within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour, and a negligible impact on the operation of the junction in the PM peak hour.

A560 Shaftesbury Avenue/A560 Stockport Road/Moss Lane/Wood Lane

18.5.216 Table 18-297 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-297: A560 Shaftesbury Avenue/A560 Stockport Road/Moss Lane/Wood Lane junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Moss Lane	358	60%	4	381	65%	5	388	74%	5	403	80%	5
B5165 Stockport Road	221	54%	3	221	53%	3	231	56%	3	230	56%	3
A560 Stockport Road (east)	644	83%	8	675	88%	9	713	94%	9	717	95%	9
Wood Lane	396	82%	5	405	87%	5	414	93%	5	417	95%	5
A560 Stockport Road (west)	743	100%	9	746	100%	10	743	100%	9	748	100%	9
A560 Shaftesbury Avenue (internal westbound)	865	22%	0	895	22%	0	944	24%	0	947	24%	0
A560 Stockport Road (internal westbound)	865	47%	9	895	49%	9	967	53%	10	947	52%	10
A560 Stockport Road (internal eastbound)	712	18%	0	741	19%	0	679	18%	0	722	19%	0
A560 Shaftesbury Avenue (internal eastbound)	545	28%	4	583	30%	5	540	27%	4	582	29%	5
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
Moss Lane	419	96%	5	421	98%	5	421	99%	5	421	100%	5
B5165 Stockport Road	186	51%	2	199	54%	2	214	58%	3	220	60%	3
A560 Stockport Road (east)	457	54%	6	457	54%	6	486	58%	6	490	58%	6
Wood Lane	373	75%	4	376	76%	4	372	73%	4	361	70%	4
A560 Stockport Road (west)	909	107%	10	915	108%	10	918	108%	10	922	109%	10
A560 Shaftesbury Avenue (internal westbound)	643	16%	0	655	16%	0	701	18%	0	710	18%	0
A560 Stockport Road (internal westbound)	643	33%	6	655	33%	6	701	36%	7	710	36%	7
A560 Stockport Road (internal eastbound)	985	26%	0	1,002	27%	0	1,029	28%	0	1,036	28%	0
A560 Shaftesbury Avenue (internal eastbound)	500	24%	4	510	25%	4	525	26%	4	571	28%	4

18.5.217 The change in traffic due to operation of the Proposed Scheme will not substantially increase the maximum VoC between the 2038 future baseline and the Proposed Scheme in the AM or PM peak hours. However, in the AM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 83% in the 2038 future baseline to 88% with the Proposed Scheme in 2038 on the A560 Stockport Road (east) approach in the AM peak hour. Queue length will increase from eight PCU in the future baseline to nine PCU with the Proposed Scheme. In the PM peak hour, the change in traffic due to operation of the Proposed Scheme will substantially increase the VoC from 96% in the 2038 future baseline to 98% with the Proposed Scheme in 2038 on the Moss Lane approach in the PM peak hour. There will be no change in queue lengths. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction which is, however, predicted to operate above its capacity in the future baseline.

18.5.218 The change in traffic due to operation of the Proposed Scheme will not substantially increase the maximum VoC between the 2046 future baseline and the Proposed Scheme in the AM or PM peak hours. However, in the AM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 93% in the 2046 future baseline to 95% with the Proposed Scheme in 2046 on the Wood Lane approach in the AM peak hour. There will be no change in queue lengths. The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the PM peak hour. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour which is, however, predicted to operate over its capacity in the future baseline.

A56 Manchester Road/B5164 Barrington Road

18.5.219 Table 18-298 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046. The Altrincham Fire Station approach is a minor arm that is not included within the SATURN model.

Table 18-298: A56 Manchester Road/B5164 Barrington Road junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Manchester Road (north)	1,194	49%	23	1,205	50%	23	1,221	50%	23	1,227	51%	23
B5164 Barrington Road	562	80%	11	561	80%	11	582	83%	11	585	83%	11
A56 Manchester Road (south)	697	48%	13	703	49%	13	713	58%	13	714	56%	13
Altrincham Fire Station	-	-	-	-	-	-	-	-	-	-	-	-
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Manchester Road (north)	570	24%	11	552	24%	11	575	25%	11	542	23%	11
B5164 Barrington Road	579	76%	11	608	80%	11	642	85%	12	663	88%	12
A56 Manchester Road (south)	804	51%	16	806	51%	16	811	52%	16	827	52%	16
Altrincham Fire Station	-	-	-	-	-	-	-	-	-	-	-	-

18.5.220 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

18.5.221 The model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM peak hour. In the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the maximum VoC from 85% in the 2046 future baseline to 88% with the Proposed Scheme in 2046 on the B5164 Barrington Road approach in the PM peak hour, with no change in corresponding queue length. The assessment shows that in the AM peak hour the junction operates within capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

A560 Shaftesbury Avenue/Aimson Road East

18.5.222 Table 18-299 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046.

Table 18-299: A560 Shaftesbury Avenue/Aimson Road East junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A560 Shaftesbury Avenue (north)	1,165	75%	8	1,193	77%	8	1,252	81%	9	1,275	83%	9
Aimson Road East	17	6%	1	17	6%	1	17	6%	1	32	10%	1
A560 Shaftesbury Avenue (south)	1,339	83%	9	1,397	87%	10	1,366	85%	9	1,416	88%	10
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A560 Shaftesbury Avenue (north)	1,047	73%	7	1,054	73%	7	1,094	76%	7	1,112	77%	7
Aimson Road East	18	5%	0	26	7%	1	27	7%	1	70	19%	2
A560 Shaftesbury Avenue (south)	1,160	76%	8	1,172	77%	8	1,187	78%	8	1,219	80%	8

18.5.223 The change in traffic due to the operation of the Proposed Scheme will increase the maximum VoC from 83% in the 2038 future baseline to 87% with the Proposed Scheme in 2038 on the A560 Shaftesbury Avenue (south) approach in the AM peak hour, with a corresponding change in queue length from nine PCU in the future baseline to 10 PCU. In the PM peak hour, the model shows that for this junction, the change in traffic due to operation in 2038 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths. The assessment shows that in the AM peak hour the junction operates within capacity in the future baseline and operates close to capacity with the Proposed Scheme. In the PM peak hour, the junction operates within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction in the AM peak hour and a negligible impact on the operation of the junction in the PM peak hour.

18.5.224 The change in traffic due to the operation of the Proposed Scheme will increase the maximum VoC from 85% in the 2046 future baseline to 88% with the Proposed Scheme in 2046 on the A560 Shaftesbury Avenue (south) approach in the AM peak hour, with a corresponding change in queue length from nine PCU in the future baseline to 10 PCU. In the PM peak hour, the change in traffic due to the operation of the Proposed Scheme will increase the maximum VoC from 78% in the 2046 future baseline to 80% with the Proposed Scheme in 2046 on the A560 Shaftesbury Avenue (south) approach, with no change in corresponding queue length. The assessment shows that in the AM peak hour, the junction operates close to capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the assessment shows that this junction operates within capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have an adverse impact on the operation of the junction.

A56 Manchester Road/B5165 Park Road/Woodcote Road

18.5.225 Table 18-300 summarises the performance of the junction as a result of the Proposed Scheme in both 2038 and 2046. The Woodcote Road approach is a minor arm that is not included within the SATURN model.

Table 18-300: A56 Manchester Road/B5165 Park Road/Woodcote Road junction 2038 and 2046 future baseline and Proposed Scheme junction capacity assessment

Approach	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU	Flow, PCU/hr	VoC	Q, PCU
08:00–09:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Manchester Road (north)	1,995	102%	31	2,001	103%	31	2,027	104%	31	2,031	104%	31
B5165 Park Road	440	97%	11	441	98%	11	452	100%	11	452	100%	11
A56 Manchester Road (south)	1,352	93%	19	1,358	93%	19	1,369	95%	19	1,372	95%	19
Woodcote Road	-	-	-	-	-	-	-	-	-	-	-	-
17:00–18:00	**2038 future baseline**			**2038 with the Proposed Scheme**			**2046 future baseline**			**2046 with the Proposed Scheme**		
A56 Manchester Road (north)	1,710	98%	30	1,704	98%	30	1,723	99%	31	1,721	99%	31
B5165 Park Road	486	99%	11	494	100%	12	499	101%	12	502	102%	12
A56 Manchester Road (south)	1,398	92%	20	1,426	94%	20	1,454	97%	20	1,464	97%	21
Woodcote Road	-	-	-	-	-	-	-	-	-	-	-	-

18.5.226 The change in traffic due to operation of the Proposed Scheme will not substantially increase the maximum VoC between the 2038 future baseline and the Proposed Scheme in the AM or PM peak hours. However, in the PM peak hour, the change in traffic due to operation of the Proposed Scheme will increase the VoC from 92% in the 2038 future baseline to 94% with the Proposed Scheme in 2038 on the A56 Manchester Road (south) approach in the PM peak hour. There will be no change in queue lengths. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates close to capacity in the future baseline and over capacity with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction in the AM peak hour and an adverse impact on the operation of the junction in the PM peak hour.

18.5.227 The model shows that for this junction, the change in traffic due to operation in 2046 of the Proposed Scheme will not result in substantial changes in VoC and queue lengths in the AM or PM peak hours. The assessment shows that in the AM peak hour the junction operates over capacity in both the future baseline and with the Proposed Scheme. In the PM peak hour, the junction operates over capacity in both the future baseline and with the Proposed Scheme. The traffic flow will have a negligible impact on the operation of the junction.

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